

# Evaluating Social Media Metric Changes on Instagram to Disseminate an Anaphylaxis Tool to the General Public: A Repeated Measures Feasibility Study

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## INTRODUCTION

Social media are innovative platforms used to disseminate evidence-based health information and with a high number of users, Instagram is a potentially effective means to share health information.

For parents, anaphylactic reactions cause significant stress as they require timely recognition and initiation of therapy. However, a significant percentage of families have knowledge gaps on how to manage their children's anaphylactic reactions.

Parents often use online resources to complement formal education to improve their health literacy and Instagram presents a unique opportunity to mobilize knowledge to the general public.

## AIM

The research question was "what are the metric changes on Instagram when using social media as a platform to disseminate an anaphylaxis tool to the general public?"

The purpose was to implement a four-week social media campaign in May 2022 to disseminate an anaphylaxis tool with the research team at Translating Evidence in Child Health to Enhance Outcomes (ECHO) and Translating Emergency Knowledge for Kids (TREKK).

The goals of the campaign were to:

1. Disseminate the anaphylaxis video
2. Evaluate the reach and engagement of posts and Instagram stories
3. Assess the use of social filtering techniques (use of social media hashtags) to identify posts that enhanced engagement
4. Assess changes in followership on the TREKK Instagram page

## METHODS

The anaphylaxis tool was used to create Instagram posts, stories, and reels, which were chosen to utilize the different functions of Instagram to post health information. Metric data (number of followers, views, likes, shares, comments, and saves) were collected every Monday morning before the new messages were disseminated. The ANOVA test was used to compare mean weekly differences during multiple time points throughout the campaign.

- o Instagram posts were disseminated every 2 days at 10 AM.
- o Stories were released every 24 hours at 2 PM.
- o Reels were posted weekly every Monday at 12 PM.

## RESULTS

The TREKK Instagram page gained 57 followers during the campaign period. 2-way ANOVA tests were conducted for reach and shares and 1-way ANOVA tests were conducted for likes, saves, and followership. The Bonferroni correction was applied to all ANOVA tests.

The type and week of content posting influenced the reach (also known as the number of views) of the campaign material (p-value= <0.001).

For the number of shares, the type of content was statistically significant with posts being shared more often than stories and reels (p-value = <0.001, the mean difference between post and story was 2.24 and the mean difference between post and reel was 0.74). For the time period, the p-value is greater than 0.05, suggesting that time was not statistically significant.

## RESULTS CONTINUED

The time period when Instagram content was disseminated did not statistically impact the number of likes and saves as the p-values were 0.125 and 0.776 respectively.

For the number of followers, time has a statistically significant effect with followership steadily increasing during the campaign period (p-value=<0.001).

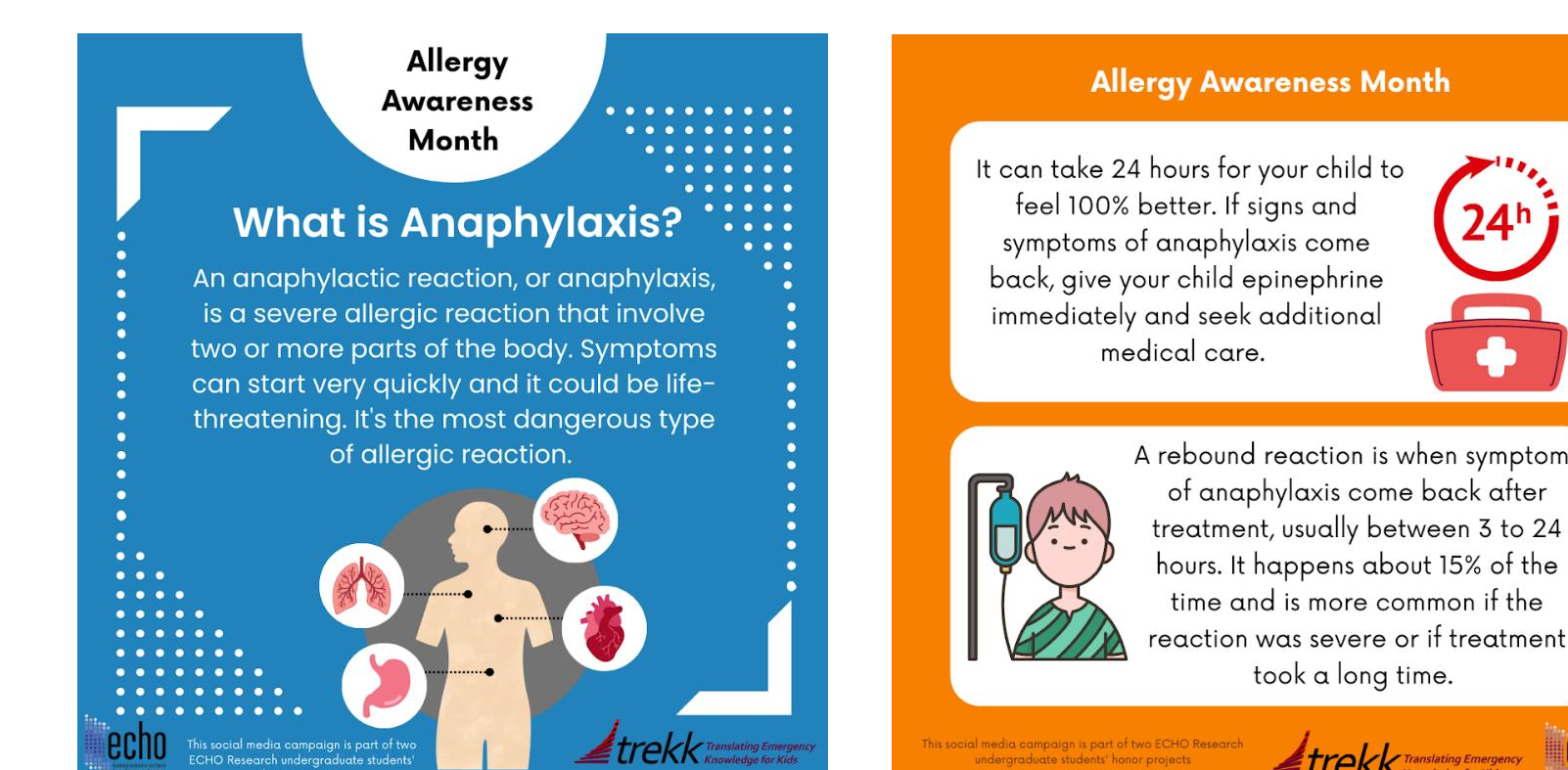


Image 1. Examples of Posts Disseminated During Active Campaign Period

## Anaphylaxis

Anaphylaxis is a severe allergic reaction that involves two or more parts of the body and happens quickly.

## Understanding and managing your child's anaphylaxis

This video provides information on the symptoms of anaphylaxis, how to manage it at home, and when to seek emergency care.



Image 2. Knowledge Translation Pediatric Anaphylaxis Tool

Link: <https://www.echokt.ca/tools/anaphylaxis/>

## RESULTS CONTINUED

Scatter Plot of Followers by Time

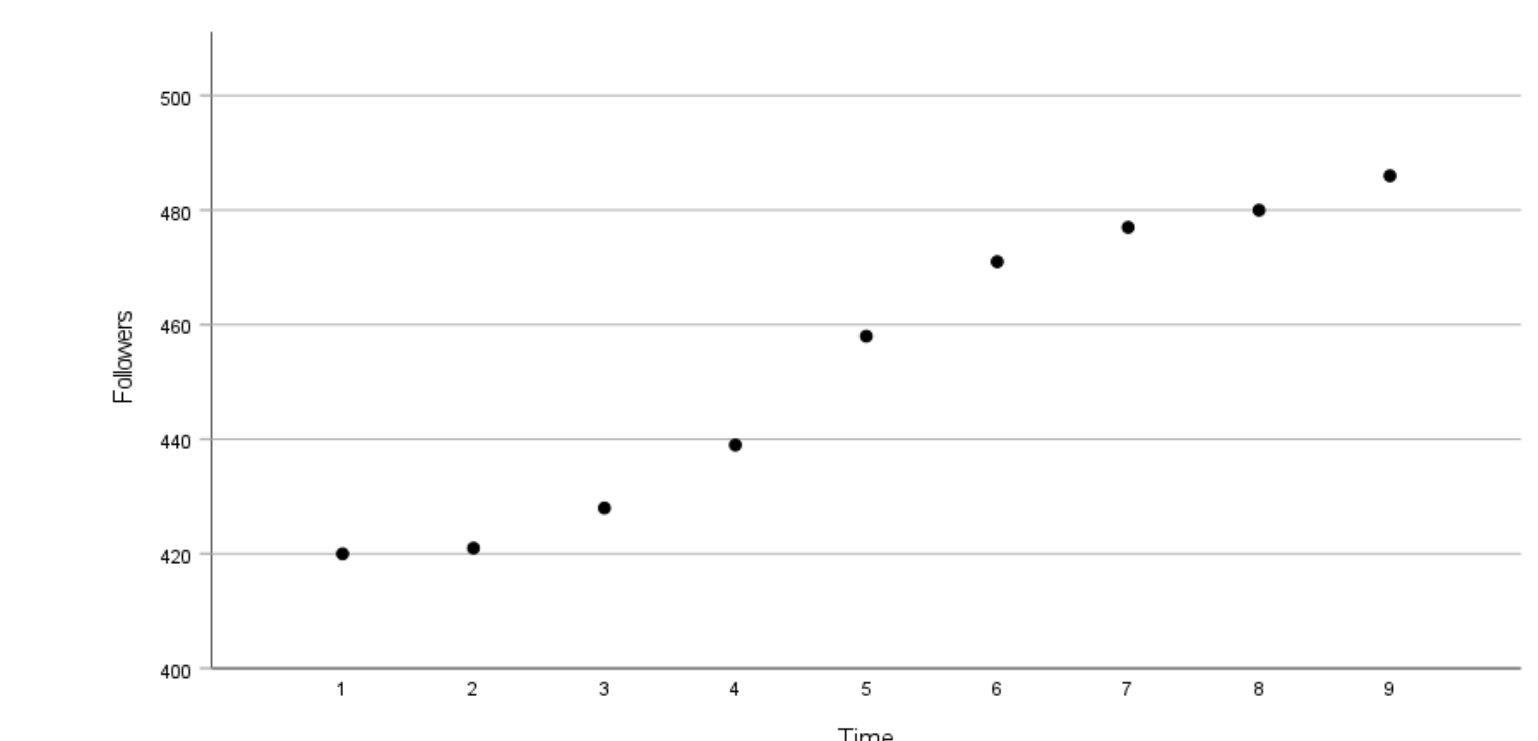


Diagram 1. Weekly Follower Changes

## CONCLUSION

- o The anaphylaxis social media campaign successfully increased Instagram followers and we found that posts were shared more than stories or reels.
- o Some challenges include evaluating information uptake, flagging misinformation, and the impact of social media filtering techniques on user engagement.
- o Future studies should investigate the behavioral changes in users (e.g. accessing healthcare resources), fact-checking misinformation, and the use of hashtags/types of tagged accounts (personal versus organizational) on user engagement.

## ACKNOWLEDGEMENTS

This research was funded by the Faculty of Nursing Undergraduate Student Summer Research Award. Dr. Shannon Scott is supported by the Stollery Science Lab and a Canada Research Chair. In-kind support received from TREKK communications.