

# Who is saying what about Inflammatory Bowel Disease on Twitter?

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## Background

- With about 330 million active users and its growing media attention globally, Twitter is a powerful tool for conveying information to the general population.
- There is limited data on the utilization of Twitter for disseminating medical information.
- This study evaluated messages on Twitter regarding IBD.

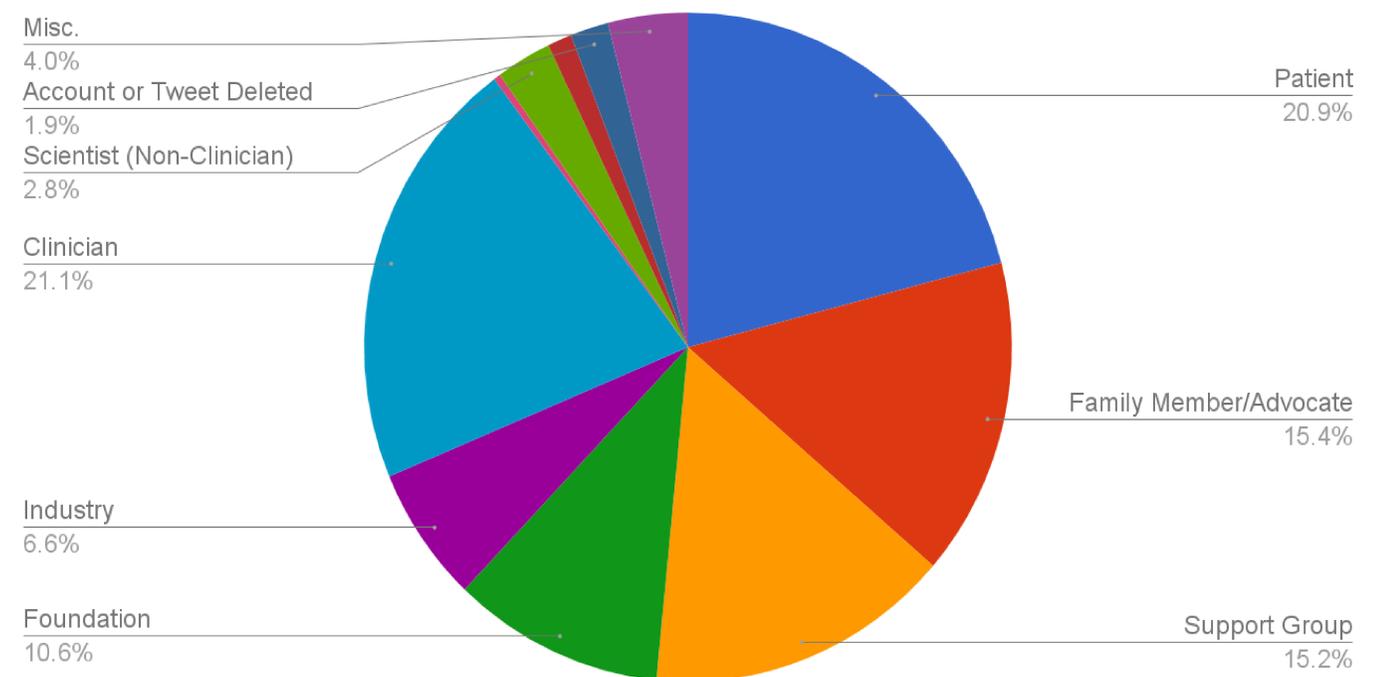
## Methods

- Social Feed Manager (SFM; version 1.10.0; GW University, 2017), a software that mines social media platforms, was used to extract information regarding IBD-related tweets and their accounts over a 10-day period.
- We queried Twitter for terms related to IBD and categorized messages by geographic origin, type of user, and message content.
- Statistical analysis was conducted using a two-tailed Fisher's Exact Test with a significance set at  $p < 0.05$ .

## Results

- Our study analyzed 629 consecutive IBD-related messages worldwide.
- The vast majority of tweets came from the USA (41.7%) and UK (35.7%), with fewer from Canada (9.9%), South America (8.5%), Asia (3.2%), and Australia (0.9%).
- These messages were posted by 578 distinct users (Figure 1), with patients (20.9%) and clinicians (21.1%) being the most common.
- General disease information was discussed by patients and support groups more than by clinicians, industry, foundations, and advocates (39.2% vs. 23.6%;  $p=0.0002$ ), with symptoms being discussed by patients more than all other groups (23.1% vs. 8.0%;  $p=0.0001$ ).
- Disease management was discussed by clinicians, industry, and foundations more than by patients, advocates and support groups (52.9% vs. 28.5%;  $p=0.0001$ ).
- Direct recommendations were made more by clinicians and industry than other groups (5.6% vs. 0.8%;  $p=0.0018$ ), with industry making more recommendations than clinicians (13.2% vs. 3.3%;  $p=0.0353$ ).

Figure 1. Twitter Users Discussing IBD



## Discussion

- This study reveals that Twitter is utilized by a variety of people and provides diverse messaging about IBD.
- Patients and support groups tweeted more about general disease information, while clinicians, industry, and foundations tweeted more about disease management.
- Patients alone discussed symptoms in their messages.
- Clinicians and industry made more management recommendations than any other group, while industry made more direct recommendations than clinicians.
- It is critical that users are aware that Twitter messaging provides unfiltered medical information and that the validity of message content always should be considered.