

Introduction

Thirty-three percent of Americans use social media for health care information and 90% of respondents from 18 to 24 years of age said they would trust medical information shared by others on their social media networks (1). Health care professionals have an obligation to create educational content to be shared across social media that will help accurately inform consumers about health-related issues and outshine misleading information. Online information is not always accurate nor does it consistently come from credible sources. A prior study was done to characterize social media in Dermatology, however there has yet to be a study to characterize primary care on Instagram (2). In our study we aim to characterize the content and sources of the top ambulatory care posts on Instagram, the most popular photo-sharing platform with over 800 million active users per month.

Methods and Materials

We generated a list of the top 15 ambulatory topics based on a Meta Analysis of the top primary care reason for visits in developed and developing countries of the world by a Family Physician group at the University of Alberta in Edmonton (3). Synonymous lay terms were added for some of the items shown in Table 1. On March 9, 2019 these terms were queried on Instagram as hashtags. Posts are self labeled by users using hashtags to engage viewers to certain topics. LG and RM searched the top 15 primary care reason for visits topics in hashtag form and noted the number of hashtags associated with each post.

Instagram automatically selects the “top 9” posts based on engagement. Engagement is determined by a private instagram algorithm incorporating the number of “likes” and “comments” per posts and the following to follower ratio among other criteria.

We analyzed the content to the “top 9” post off each topic and categorized these posts as either health related or non health related based on the publisher. We assessed the credentials and occupation of the posters and used the American Board of Medical Specialties to determine if self-labeled physicians were board certified primary care physicians. The following posters were classified as health related: self identified physicians, board certified US physicians, Nurse/Nurse Practitioners, Health Journals/Education, Physical Therapist, Chiropractor/Physiologist, Natural/Wellness Practitioners, OD, Product Advertisement, and Professional Groups/Health Groups. Patient/personal posts and other miscellaneous posters were classified as non health related. We also analyzed the top health related posts for content and classified them as either Educational, Product Advertisement, or Self-promotional.

Results

In total 6,906,143 Instagram posts were tagged with the 22 hashtags associated with the 15 primary care topics which were queried for this study. 198 of these posts were considered “top posts”. Out of these posts, 73 unique posters (36%) identified working in health care and were classified as health related posters. These posters had the following breakdown: 16 (22%) Physicians, 29 (40%) Natural/Wellness practitioners, 15 (21%) Professional groups/Health groups, 4 (5%) Health Journals/Education, 3 (4%) Physical Therapists, 2 (3%) RN/CRNP, 2 (3%) Chiropractor/Psychologist, 1 (1%) OD. Of these, 4 (5%) physicians were able to be verified as board certified physicians. Of both healthcare non-related and related top posts for these topics, 8% of posts are accounted for by self identified physicians, 2% of which are board certified.

The content of health related posts had the following breakdown: 54 (75%) Educational, 10 (14%) Product Advertisement, 8 (11%) Self-Promotion. The content of self identified physicians was 95% Educational. The content of Natural/Wellness practitioners was 68% Educational and 20% Product Advertisement. The content of Professional groups/Health groups was 53% Educational and 26% Self-Promotion. Patient/Personal posts accounted for 62% of non health related posts.

Top Hashtags of the Most Common Ambulatory Diagnoses

Diagnosis	# Hashtags
Diabetes/ Diabetes Mellitus	3,490,576
Back Pain	741,953
Arthritis	598,630
Epilepsy/Seizure	574,117
Medication	428,141
Cough	318,416
Hypertension/High Blood Pressure	215,327
Anemia	140,767
Bronchitis	135,505
Pneumonia	95,613
Generalized Anxiety Disorder/ General Anxiety/ Generalized Anxiety/ Anxiety Disorder	74,933
Major Depressive Disorder/ Depressive Disorder	46,419
Tonsillitis	45,746
Urinary Tract Infection	7,322
Upper Respiratory Infection	5399
Total Ambulatory/Medical Related	6,906,143

Table 1. Top Hashtags of the Most Common Ambulatory Diagnoses

Characterization of Top Posts by Publisher

Total Top Posts	198
Non Health Related	126
Personal/Patient	78
Health Related	72

Table 2. Characterization of Top Posts by Publisher

Publishers of Top Ambulatory Health Related Posts

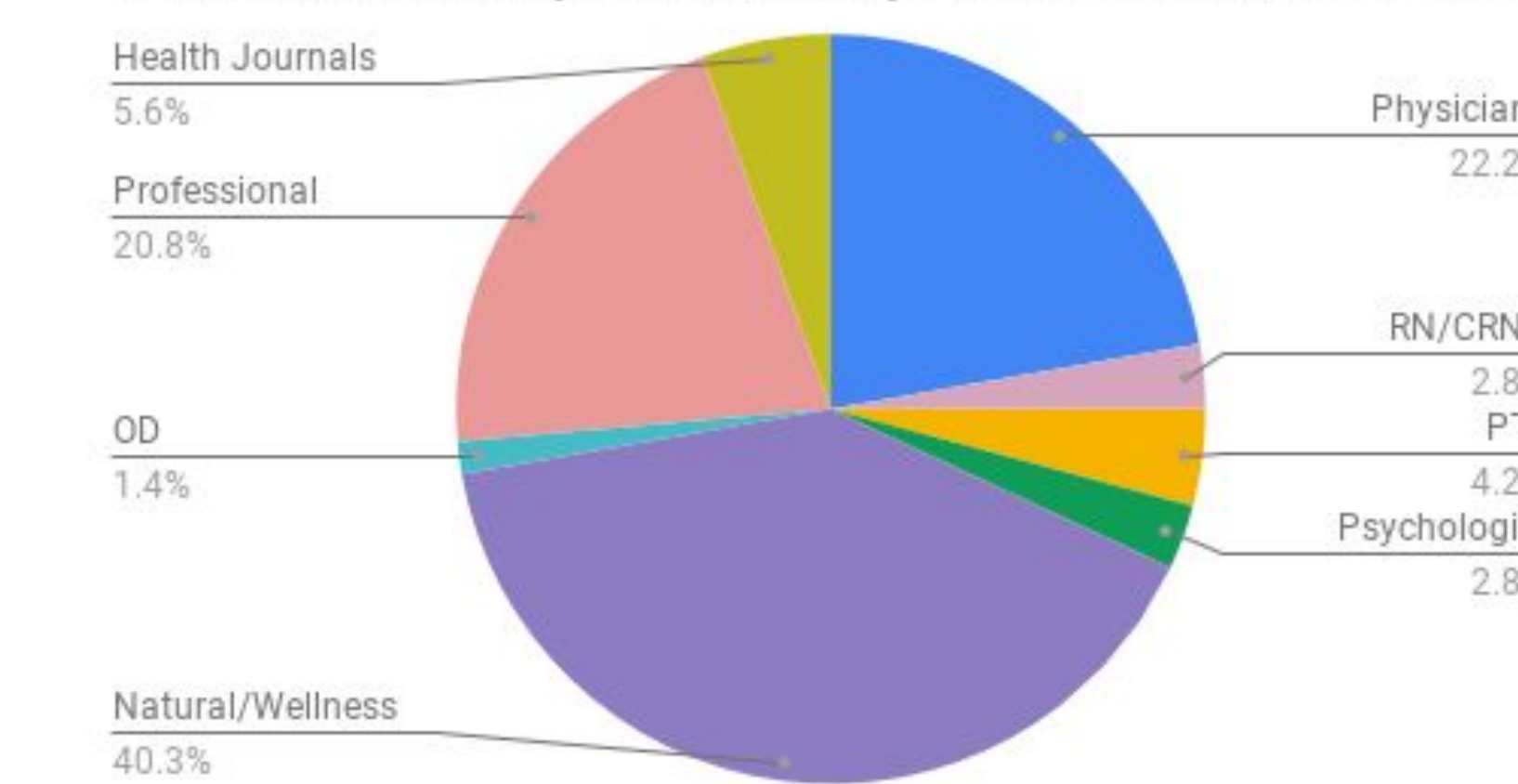


Chart 1. Publishers of Top Ambulatory Health Related Posts.

Content of Top Ambulatory Health Related Posts

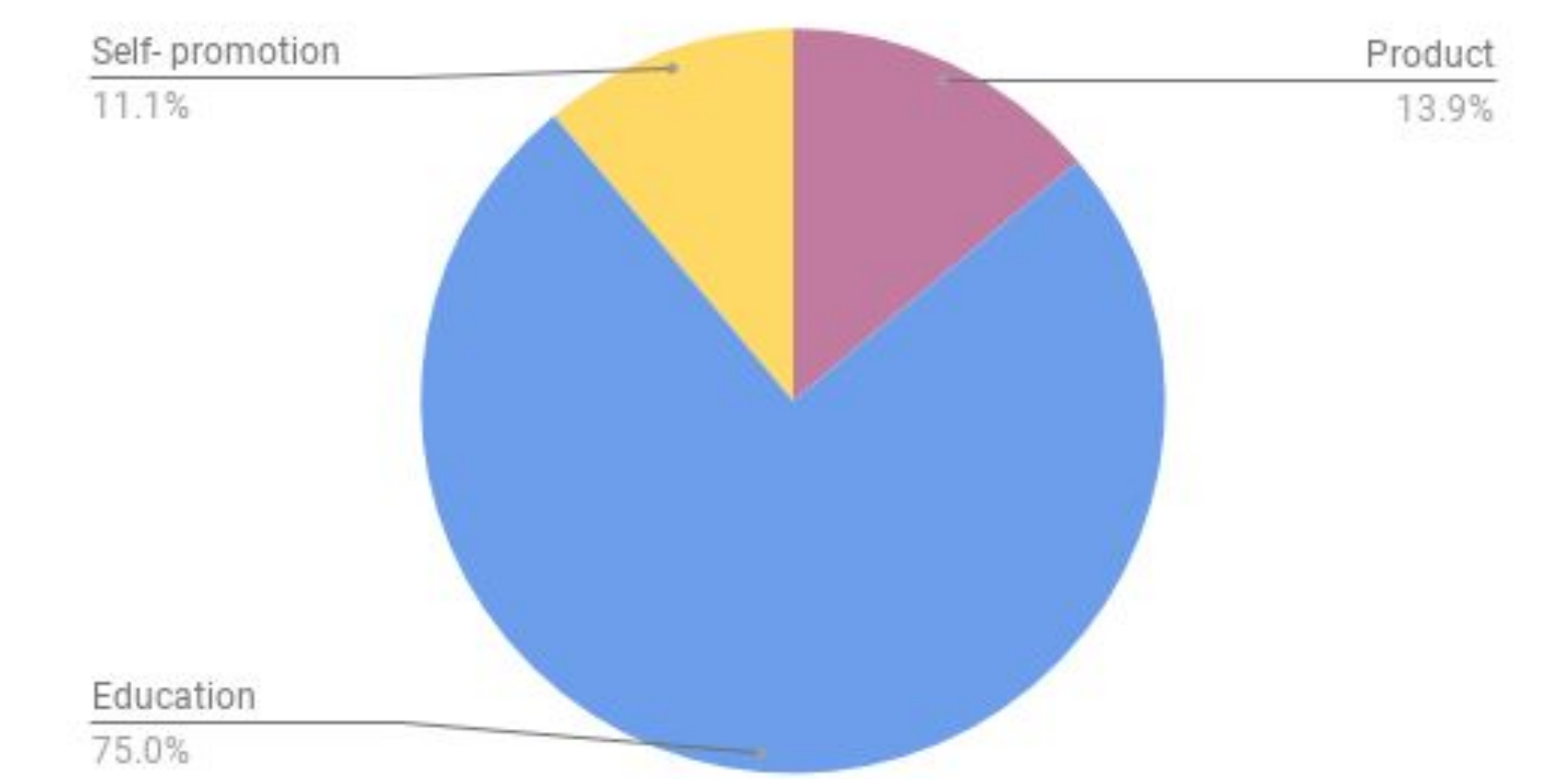


Chart 2. Content of Top Ambulatory Health Related Posts.

Discussion

In general, the majority of posts on these ambulatory topics are published by those without formal medical training, as was the case with a similar study regarding dermatological hashtags (2). In addition, we found that physicians and in particular board certified physicians account for a small proportion of top ambulatory care queried posts on Instagram. In terms of content, health related posters published mostly informational/educational content rather than product advertisement and self-promotion, which is a contrast to dermatology hashtags as there was a higher percentage of self-promotion. As the presence of health information on social media continues to grow, we believe the increased presence of well-designed informational posts by primary care physicians and other health professionals will ultimately benefit patients and decrease the spread of misinformation.

References

1. PwC HRI Social Media Consumer Survey, 2012
<https://www.pwc.com/us/en/health-industries/health-research-institute/publications/pdf/health-care-social-media-report.pdf>
2. Dermatology on Instagram: An Analysis of Hashtags 2018
Journal of Drugs in Dermatology Volume 17 Issue 4
3. What are the Most Common Conditions in Primary Care?, 2018
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6234945/>

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