Avicenna Anatolian Journal of Medicine

Original Article

Evaluation of the #scabies Hashtag as an Information Source for Patients in Türkiye: An Original Research

Authors & Affiliations

Mehmet Çağlar Soysal

Gaziantep Emek Hospital, Deparment of Dermatology, Gaziantep, Türkiye

Corresponding Author: Mehmet Çağlar Soysal, M.D., Gaziantep Emek Hospital, Deparment of Dermatology, Gaziantep, Türkiye.
E-mail: mcaglarsoysal@gmail.com

Submitted at: 18.01.2025 - Accepted at: 26.05.2025 - Published at: 31.05.2025
Avicenna Anatol J Med. Year; 2025, Volume: 2, Issue: 1

doi 10.5281/zenodo.15569602

Abstract

Objective : The aim of this study is to evaluate the content of Instagram posts as a patient education resource for scabies.

Methods: This study analyzed the first 384 posts shared under the hashtag "#scabies" on Instagram. Two dermatology specialists evaluated each post based on various criteria, including the author (categorized as medical doctors, pharmacists, healers, patients, private hospitals, pharmaceutical companies, public health centers, news websites, or accounts created under the name "scabies"), the type of post (photo or video), its purpose (educational or promotional), and its topic (general information, symptoms and signs, preventive measures, treatment, or unrelated content). Additionally, each post was assessed for its usefulness to patients.

Results: Of the analyzed posts, 56% were photos, and 44% were videos. Among video posts, 46% were deemed useful for patients, compared to 24% of photo posts. Overall, 34% of the posts were found to be useful, while 66% were not. Healers were the most frequent authors, accounting for 45% of the posts, followed by medical doctors (23%) and pharmacists (10%). Dermatologists were the most active contributors among medical doctors. It was determined that 91% of posts by medical doctors were useful for patients, representing 62% of all useful posts. In contrast, posts by healers and pharmacists were predominantly not useful (92% and 70%, respectively).

Conclusion: Our findings suggest that Instagram is not an effective educational resource for patients regarding scabies. Therefore, it may be beneficial for dermatologist to engage more actively on Instagram to improve the quality of patient education.

Keywords: Scabies, Social Media, Education

INTRODUCTION

Social networking sites allow users to create personal pages, connect with others, and share information through various tools such as messages, photos, and videos (1). Currently, over 40% of people use social media to meet their health information needs, a trend particularly pronounced among users aged 18 to 24 (2). Social media also facilitates easier communication between doctors and patients, offers opportunities for healthcare professionals to conduct research in their fields, and raises awareness about specific diseases. This contributes to preventive healthcare, early diagnosis, and treatment awareness (3). Despite these advantages, the rapid and uncontrolled spread of misinformation remains the greatest drawback of social media in the healthcare domain.

Instagram, a visual-based social networking platform, is known to have over one billion users worldwide. More than 40% of Instagram users report that the information they find on social media influences their healthcare decisions (2). Instagram posts enable healthcare providers and patients to share information about diseases, treatments, and outcomes. An increasing number of dermatologists are using Instagram for purposes such as education, promotion, and advertising (4).

Scabies is a highly contagious parasitic disease characterized by intense itching. The causative agent, Sarcoptes scabiei var. hominis, typically affects areas such as the wrists, axillae, periumbilical region, feet, and genital regions, often symmetrically in classic cases. It leads to excoriated erythematous papules and the characteristic burrows of scabies. In both Türkiye and globally, the prevalence of scabies has increased, especially during the COVID-19 pandemic (5,6).

Factors such as migration in recent years and the 2023 Kahramanmaraş earthquake may have further contributed to this rise regionally and nationally. Additionally, resistance to conventional treatment options poses a significant challenge in managing the disease effectively (7,8).

In light of the increase in cases and treatment-resistant individuals, and considering the impact of social media on all aspects of our lives, the aim of this study is to evaluate the content of Instagram posts as a patient education resource for scabies.

METHODS

On December 20, 2024, the website Instagram (www.instagram.com) was accessed, and the hashtag "scabies" was searched in the search bar. The first 384 posts were saved for evaluation. Since the study involved publicly available data and did not include human participants or animals, ethical approval was not required. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Each post was evaluated based on its type (video, photo), purpose (educational, promotional), topic (general information, symptoms and signs, treatment, preventive measures, unrelated content), and author. After examining the personal Instagram account of each user, authors were categorized as medical doctors, pharmacists, healers, private hospitals, public health centers, news websites, patients, or accounts created under the name "scabies", with a further "others" category. Medical doctors were classified by specialty, including dermatology, pediatrics, internal medicine, infectious diseases, and family medicine. Healers were categorized based on the definition of "individuals practicing traditional medicine, herbal knowledge, spiritual healing, or thought power for healing without a license." By the term healer, we mean individuals or groups who do not have medical training but try to help patients through various methods (herbal products, natural treatment approaches or traditional techniques).

Posts were classified as educational or promotional according to their purpose. Posts focused on teaching were categorized as educational, while posts promoting individuals, products, or treatments, or those tagged as "advertisement," were considered promotional. If posts were related to scabies and could help patients seeking educational resources regarding the disease, its symptoms, prevention, and/or treatment, they were classified as educational. Post topics were identified as general information, symptoms and signs, prevention methods, treatment, or unrelated content. Posts were analyzed independently by two dermatology specialists (MÇS and OÖ), and any discrepancies were resolved through discussion.

STATISTICAL ANALYSIS

TAll data were analyzed descriptively. The frequencies (n) and percentages (%) of categorical variables were calculated. No further statistical tests were performed, and no inferential statistics were used. The results are presented as counts and proportions in the corresponding tables.

RESULTS

The hashtag "#scabies" was searched in the Instagram search bar, and the first 384 posts were analyzed in detail. Of all the posts, 34% (130/384) were found to be useful, while 66% (254/384) were deemed not useful. The format of the posts was comprised of 56% (216/384) photos and 44% (168/384) videos. Among video posts, 35% (57/168) were educational, and 65% (111/168) had a promotional purpose. Of all video posts, 46% were found to be useful for patients. Only 12.5% (27/216) of photo posts were educational, and 24% (52/216) of all photo posts were considered beneficial for patients. The difference in usefulness between video and photo formats was statistically insignificant (p=0.52, p=0.32). The relevant statistical data is shown in **Table 1.**

When posts were evaluated based on their purpose, we found that promotional posts were more frequent, comprising 78% (300/384) of the total, while educational posts accounted for only 22% (84/384). Among educational posts, 65% (55/84) were created by medical doctors. Furthermore, 95% (80/84) of the educational posts were found to be useful.

It was found that nearly half of the posts (45%, 174/384) were shared by healers. This was followed by doctors (23%, 88/384) and pharmacists (10%, 40/384). Other contributors included patients (5%, 17/384), scabies-related accounts (5%, 17/384), private hospitals (3%, 12/384), pharmaceutical companies (2%, 7/384), news

Table 1. Relevance Rates of Posts for Patients Based on Authors, Types, Purposes, and Topics

Category	n	%	Useful	Useless
Post Author				
Healers	174	45%	6%	94%
Doctors	88	23%	91%	9%
Pharmacies	40	10%	30%	70%
Patients	17	5%	23%	67%
Scabies Accounts	17	5%	10%	90%
Private Hospitals	12	3%	66%	34%
Pharmaceutical Companies	7	2%	43%	57%
News Websites	6	1%	83%	17%
Public Health Centers	4	1%	75%	25%
Others	19	5%	5%	95%
Post Type				
Video	168	44%	46%	54%
Photo	216	56%	24%	76%
Post Purpose				
Education	84	22%	95%	5%
Promotion	300	78%	17%	83%
Post Topic				
Treatment	214	56%	31%	69%
Irrelevant Content	76	20%	0%	100%
Symptoms and Signs	38	9%	92%	8%
General Information	35	9%	88%	12%
Prevention	21	6%	76%	34%

websites (1%, 6/384), public health centers (1%, 4/384), and other groups making up less than 1%. Among the doctors, the majority were dermatologists (66/88), followed by pediatricians (14), family physicians (6), an infectious disease specialist (1), and an internist (1). All these proportions are shown in Table 1.

When comparing the educational value of content for patients based on the post authors, it was found that 91% (80/88) of posts by medical doctors were useful, while 9% (8/88) of their posts were deemed not useful. These non-useful posts were considered irrelevant because, despite the hashtag "#scabies," the content addressed a different topic. Among all useful posts, 62% (80/130) were created by medical doctors. Following medical doctors, news websites had the highest rate of useful posts at 83% (5/6), followed by public health centers with 75% (3/4), and private hospitals with 66% (8/12). In contrast, 94% (164/174) of posts by healers and 70% (28/40) of posts by pharmacists were found to be largely non-useful (Table 1). These posts predominantly consisted of promotional and advertising content for herbal or chemical products claimed to be effective against scabies.

When posts were classified by their topics, it was found that the majority were related to treatment (214/384, 56%). 20% (76/384) of the posts consisted of irrelevant text and images, which were categorized as unrelated content. Posts on symptoms and signs, and general information accounted for 9% of the total, while preventive measures appeared in 6%. Looking at the useful posts by topic, the highest proportion of useful content was found in posts about symptoms and signs (92%, 35/38). This was followed by general information (88%, 31/35) and preventive measures (76%, 16/21). Among the treatment-related posts, 69% (166/214) were deemed not useful for patients. When comparing the usefulness of different content topics, the differences were found to be statistically insignificant (p-values for symptoms and signs p=0.23, general information p=0.13, preventive measures p=0.70, treatment p=0.43).

When examining the posts of medical doctors, it was found that 62% of the posts (55/88) were educational, while 38% were promotional. Among the medical doctor posts, 30% (27/88) were related to symptoms and signs, 27% (24/88) focused on general information, and 24% (21/88) covered treatment. Healers, who made up the majority of the posts, were found to have shared treatment-related content in 80% of their posts, with most of these posts deemed not useful. Table 1 shows the usefulness rates of posts for patients, categorized by the authors, types, purposes, and topics of the posts.

DISCUSSION

Social media platforms have become an integral part of daily life, with their usage and prevalence increasing steadily since their inception, and expanding even further during the COVID-19 pandemic. Users known as "influencers," who have a large following, wield significant influence in society through these platforms (9). Medical professionals, including dermatologists, who are also prominent users of social media, utilize these platforms to connect with and educate the public, while promoting their brands and practices (10). A recent study on Instagram identified the most popular dermatology hashtags as #acne, #alopecia, and #eczema (11). In our study, we examined the hashtag #scabies.

The majority of the posts were in photo format, and it was observed that video posts had a higher usefulness rate for patients compared to photos; however, no statistically significant difference was found between the two formats (p=0.071). A very high proportion of the posts were shared for promotional purposes, while a smaller number of educational posts were found to be highly useful for patients. In our study, most contributors were categorized as "healers," while doctors accounted for only 23% of the authors. Among medical doctors, the highest percentage was dermatologists, accounting for 75%. In a study by Szeto et al., which examined all dermatology-related content on social media platforms, 52% of the contributors were non-medical professionals, while 32% were doctors, of which 84% were dermatologists (12). Similarly, in a study by Semih Güder et al. regarding nevus excision on Instagram, 32% of the posts were made by medical doctors, with the remainder predominantly by non-medical professionals, including aestheticians (13).

Scabies has become a public health issue in our country in recent years, with an alarming increase in cases and treatment challenges. Resistant cases, particularly those that do not respond to traditional treatments, are a significant concern in the daily practice of dermatologists and the entire medical community (14). Due to difficulties in accessing healthcare or the ineffectiveness of treatments, patients often turn to social media platforms in search of alternatives. Our study found that the majority of posts, particularly those from individuals categorized as "healers," were largely ineffective (%94). Additionally, although less frequent, posts by pharmacists were predominantly ineffective (%70). Most of these posts consisted of advertisements and marketing for herbal or chemical remedies claimed to be effective against scabies. The majority of useful posts, however, were shared by medical doctors. In light of these findings, it can be concluded that Instagram is an insufficient source of reliable information for patients, and it is crucial for medical professionals to utilize these platforms more frequently. Patients need to exercise caution, especially when it comes to unapproved products or mixtures marketed as effective for scabies.

In our study, we found that medical doctors shared balanced posts covering nearly every aspect of scabies. However, most of the ineffective posts were related to treatment. This suggests that dermatologists who use social media could consider sharing more posts focused on treatment to enhance the quality and reliability of the information available to patients.

Such social media studies have certain limitations. Firstly, social media content is constantly changing

and consumed quickly, which means our study may only represent a limited timeframe and may not provide insights for the future. Another limitation is that posts from more recognizable senders tend to be more noticeable, potentially skewing the data towards more popular accounts or influencers.

Our significant limitations include the fact that our analysis is limited to posts on the Instagram platform only, that different dynamics on other social media platforms are not evaluated, that the data only covers a certain time period, and that we cannot access the demographic information of the users.

CONCLUSION

Our study found that non-medical Instagram users frequently share ineffective posts about scabies. Therefore, it is suggested that physicians, particularly dermatologists, should be more active on Instagram. Medical professionals in Türkiye could benefit from incorporating hashtags such as #scabies in their posts related to scabies to help provide accurate and helpful information to the public.

DECLERATIONS

Ethics Committee Aproval: Study involved publicly available data and did not include human participants or animals, ethical approval was not required.

Financial Disclosure: The authors declared that this study has received no financial suppor.

Author Contributions: All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

Informed consent form: Not Applicable.

Funding source: No funding was received fort he research

Artificial Intelligence: The author declare that they have not used any type of generative artificial intelligence for the writing of this manuscript, nor for the creation of images, graphics, tables, or their corresponding captions.

REFERENCES

1. Ellison NB. Social network sites:Definition, history and scholarship. J *Comput Mediat Communication.* 2007;13:210-230.
2. Surani Z, Hirani R, Elias A, et al. Social media usage among health care providers. *BMC Res Notes.* 2017;10(1):654. Published 2017 Nov 29. doi:10.1186/s13104-017-2993-y
3. Campbell L, Evans Y, Pumper M, Moreno MA. Social media use by physicians: a qualitative study of the new frontier of medicine. *BMC Med Inform Decis Mak.* 2016;16:91. Published 2016 Jul 15. doi:10.1186/s12911-016-0327-y
4. Braunberger T, Mounessa J, Rudningen K, Dunnick CA, Dellavalle RP. Global skin diseases on Instagram hashtags. *Dermatol Online J.* 2017;23(5):13030/qt7sk410j3. Published 2017 May 15.
5. Baykal C, Atci T, Kutlay A, Baykut B, Türkoğlu Z. Scabies outbreak in Turkey in 2018-2019. *J Eur Acad Dermatol Venereol*. 2021;35(6):e384-e385. doi:10.1111/jdv.17152
6. Çaytemel C, Erdem O, Ağırgöl Ş, Türkoğlu Z. Dermatology outpatient clinic outcomes after COVID-19 outbreak: What is new normal?. *Dermatol Ther.* 2021;34(3):e14950. doi:10.1111/dth.14950.
7. Khalil S, Abbas O, Kibbi AG, Kurban M. Scabies in the age of increasing drug resistance. *PLoS Negl Trop Dis*. 2017;11(11):e0005920. Published 2017 Nov 30. doi:10.1371/journal.pntd.0005920.
8. Akaslan TÇ, Mert Ö, Su Küçük Ö. Scabies increase during the COVID-19 pandemic: should we change our treatment strategy during the pandemic?. *Ann Parasitol*. 2022;68(1):35-38. doi:10.17420/ap6801.405.
9. Dorfman RG, Vaca EE, Mahmood E, Fine NA, Schierle CF. Plastic Surgery-Related Hashtag Utilization on Instagram: Implications for Education and Marketing. *Aesthet Surg J.* 2018;38(3):332-338. doi:10.1093/asj/sjx120
10. Sierro TJ, Young PM, Kassabian SK, Wu KK, Armstrong AW. Dermatologists in social media: A study on top influencers, posts, and user engagement. *J Am Acad Dermatol*. 2020;83(5):1452-1455. doi:10.1016/j.jaad.2020.03.001
11. Damanpour S, Nazarian R, Deutsch A, Hosgood HD, Kim J, McLellan BN. Social media activity is associated with higher physician ratings by patients. *J Am Acad Dermatol*. 2021;84(5):1455-1458. doi:10.1016/j.jaad.2020.06.1015.
12. Braunberger T, Mounessa J, Rudningen K, Dunnick CA, Dellavalle RP. Global skin diseases on Instagram hashtags. *Dermatol Online J.* 2017;23(5):13030/qt7sk410j3. Published 2017 May 15.
13. Szeto MD, Mamo A, Afrin A, Militello M, Barber C. Social Media in Dermatology and an Overview of Popular Social Media Platforms. C*urr Dermatol Rep.* 2021;10(4):97-104. doi:10.1007/s13671-021-00343-4
14. Güder S, Güder H. "Mole removal" on Instagram Hashtags: A Cross-sectional Analysis: Nevus Treatment Methods on Instagram. *Dermatol Pract Concept*. 2022;12(1):e2022066. Published 2022 Jan 1. doi:10.5826/dpc.1201a66.
15. Karaca Ural Z, Çatak B, Ağaoğlu E. Prevalence of Scabies in the Covid-19 Pandemic Period and Determination of Risk Factors for Scabies: a Hospital-Based Cross-Sectional Study in Northeast Turkey. *Acta Parasitol.* 2022;67(2):802-808. doi:10.1007/s11686-022-00524-6