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# Social media and dissemination: impressions of fish pedicures following a case of onychomadesis

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## Abstract

Although the popularity of fish pedicures as cosmetic or routine services and/or tourist attractions has peaked in the past decade, the practice is still trending today and accompanying risks are less well-known by the public. More recently, a case of onychomadesis following fish pedicure has gained interest in both public and dermatologic populations, highlighting the importance of patient education. In this study, we aimed to demonstrate the wide reach of the manuscript through social media and news outlets. The majority of social media correspondences have come from Thai accounts whereas news outlets were mostly from the United States and various European or Asian countries. Analyzed by Altmetric score, the report was within the top 5% of all research outputs ever scored by Altmetric. Finally, Google Trend data indicates that fish pedicure interest decreased thereafter to the lowest levels in the past decade after the case report was published, signifying its likely effect on diminishing public interest. This case report and analysis of its news/social media reach emphasize the importance of literature/media outlets in informing patients and the public of adverse effects. As fish pedicures continue to be popular both in the US and overseas, appropriate education of the public remains important in preventing complications.

*Keywords: onychomadesis, fish pedicure, Garra rufa, media, patient education*

To the Editor:

Fish pedicures have emerged as a worldwide trend, peaking in popularity in the past decade and featuring *Garra rufa* fish, which eat human skin.

These “doctor fish” are mainly utilized for cosmetic pedicures, but have also been studied for psoriasis treatment [1]. However, there are inherent risks with this activity, including potential transmission of infection and lack of sanitation guidelines, which have led to a ban across much of the United States (US). A case of onychomadesis following a fish pedicure has increased media attention regarding this activity [2]. The influence of this case report in both dermatologic and general communities through news/social media is important in informing the public of potential risks. The current study evaluated the reach of this case on several online platforms, including news and social media, and identified the types of individuals/outlets that engaged in its discussion.

In this study, the Altmetric details webpage was used to investigate media attention for the *JAMA Dermatology* manuscript titled “Onychomadesis Following a Fish Pedicure” [3]. From this page, data including number of tweets, followers, and/or likes was gathered on the social media sites Twitter and Facebook. These measures were organized by country as well as by categorization of users as general public members, news or media organizations, health and/or science communicators, or nonverified accounts, whenever available. In addition, the overall Altmetric score was evaluated as well as Google Trends data regarding fish pedicure searches worldwide within the past 1-10 years. The study was exempted from Institutional Review Board review at Weill Cornell Medicine.

On Twitter specifically, there were a total of 2087 tweets mentioning the manuscript by name or by link to the article, with an upper bound of 1,952,991

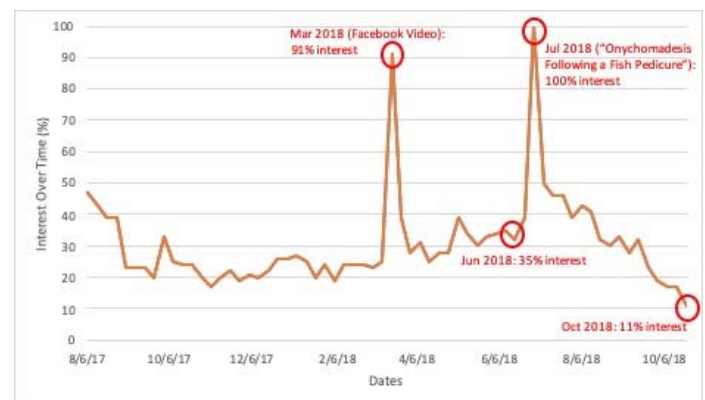
users following these posters' accounts. Accounts from Thailand were responsible for 553 tweets, whereas 25 were from the US, 8 from the United Kingdom (UK), and the remainder from other or unspecified countries. Individual account holders posted 1999 of these and the remainder came from news/media organizations, health and/or science communicators, or nonverified accounts. The report also reached 11 public Facebook pages or posts, with the majority of total "likes" coming from Thailand (937) and the US (675). A total of 92 news outlets total referenced the report, with 69 based in the US and the remainder from Europe and Asia (Table 1). Overall, the Altmetric algorithm "Attention Score" algorithm produced a score of 922, placing this manuscript in the top 5% of all research outputs ever scored by Altmetric and resulting as the #2 output of total articles or papers on *JAMA Dermatology* analyzed by Altmetric at any point.

"Onychomadesis Following a Fish Pedicure" [3] garnered extraordinary media attention for a case report. Within public social media outlets, the majority of correspondences came from Thai accounts, followed by those from the US and Europe including the UK and Spain. As fish pedicures have become more popular in Mediterranean and Asian countries while still trending in the US and Europe, the reach of the report may influence a wider yet more targeted audience, especially in these common countries. This is further supported by the Google Trends data regarding the search term "fish pedicure," which reached a 5-year peak

**Table 1.** Summary of social media and news outlet reach of fish pedicure case report by country.

Country	No. of Tweets	No. of Facebook likes	No. of News outlets
Thailand	553	937	1
United States	25	675	69
United Kingdom	8	--	4
France	8	--	2
Spain	5	10	7
Other European	9	1	6
Other Asian	7	--	3
Unknown	1,421	--	--

popularity/interest in 2018, specifically in the month when the case was published online. At the time, the searches were most popular in France, the US, and other European countries. Interest subsequently decreased to some of the lowest levels in the past decade within the months following the report's publication. Therefore, it is probable that this report had a significant effect of decreasing the public's interest in fish pedicures, which continues to decrease (Figure 1). In contrast, similar interest peaks — i.e. in March 2018, attributed to a viral Facebook video of a woman receiving a fish pedicure — led to an increase in searches over subsequent months. Otherwise, worldwide interest has been <50% peak popularity in the past 5 years.



**Figure 1.** Worldwide interest in the search term "fish pedicure" over one year (Aug 2017 to Oct 2018); data plotted from Google Trends.

More specifically, the Twitter user @thidakarn, a "celebrity health/beauty doctor" in Thailand, singlehandedly accounted for 3040 re-tweets from her followers. This scope supports recruitment of well-known users with substantial numbers of followers to inform the general public of potential risks.

"Onychomadesis Following a Fish Pedicure" [3] had a record media and social media reach worldwide. As young adults more regularly utilize social media [4], Twitter and Facebook are practical platforms to reach individuals more likely to engage in fish pedicures as routine and/or tourist attractions. As the practice is popular both in the US and overseas, appropriate education of the public remains important in preventing complications.

## Potential conflicts of interest

The authors declare no conflicts of interests.

## References

1. Warwick D, Warwick J. Turkey THE DOCTOR FISH-A CURE FOR PSORIASIS? *Lancet*. 1989;334:1093-1094. [DOI:10.1016/S0140-6736(89)91098-2].
2. Lipner SR. Onychomadesis Following a Fish Pedicure. *JAMA dermatology*. 2018;154:1091-1092. [PMID: 29971352].
3. Overview of attention for article published in JAMA Dermatology, July 2018. Altmetric.com. <https://www.altmetric.com/details/44451391>. Published 2018. Accessed on September 9, 2018.
4. Social Media Use in 2018. Pew Research Center. <http://www.pewinternet.org/2018/03/01/social-media-use-in-2018/>. Published 2018. Accessed on October 23, 2018.