

Social Media (In) Fertility Education - Fertility Webspaces

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Abstract

Objective: to determine prevalence, authorship and types of fertility related information on two social media platforms in india- instagram and twitter using hashtag and content analysis. Comparison of content by author type(health professionals, patient and digital content creators)

Method: a list of 5 hashtags consisting of fertility terms that may be used by a new patient while searching social media were used. The search function of instagram and twitter was used to generate posts related to the selected hashtags - #ivfindia, #ivfsuccessindia, #fertilityindia, #infertilityindia and #ivfsupportindia. Private posts and content not related to the search item were excluded. Analysis of the posts was done in June 2023 on the top 50 posts of each hashtag or all the posts if number of posts < 50 of that hashtag, coming up in the search feed for author and content type. The posts made by health professionals was compared to that of patients in terms of usage of hashtag.

Results: our search made way to 11,913 posts (11,870 of instagram, 43 of twitter). The two most popular hashtags on both instagram and social media were ivfindia(10,100 posts on instagram and 27 posts on twitter) , infertilityindia(1094 posts on instagram and 8 posts on twitter). Authorship of top posts of each hashtags on both social media (n=237), health professionals and allied (78.90%), digital content creators (16.45%), patients (4.65%). Of these posts, 35.02% were related to advertisements, 27.02% educational, 16.03% related to patient's experience, 10.54% outreach and 11.39% others.

Conclusion: a majority of posts were made by health professionals and allied using it as a low cost platform for networking, advertising and connecting with patients. There has been a rising trend about educating their patients about process using social media as a platform, enhancing relationship with patients and dissemination of accurate information. Fertility webspaces also carries perils as social media posts may lead to misunderstandings and negative perceptions.

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I. Background

Social media has transformed communication and cultural influence and has rapidly become an integral part of our daily routine. Communication via user-generated content enables interaction and collaboration among healthcare communities and patients. The benefit of social media is apparent in our daily lives; they enable an instant virtual outreach into a vast digital audience.

The Indian population has taken to social media like duck to water. Indian, on an average spend about 2.36 hours on social media daily. In India, the number of social media users have been growing in 2023 at a steady rate of 467 million due to deep penetration of internet connectivity among people. The number of internet users in India has grown to whopping 692 million, which is roughly 48.7% of total population of India.(1) Now social media has become one of the most essential parts of daily internet usage in India. In India, Instagram is the most used social media platform in 2023 with 74.70% internet users involved. Twitter has got 42.90% penetration. (1)

Online availability of health related information has increased significantly in recent years. (2) Increasing number of patients are now sharing their (in) fertility journeys through social media. (3,4) A recent study of couples desiring children and actively trying to conceive found that participants were most likely to seek fertility-related information on the Internet as a first source. (5)

Blakemore et al. report on the emerging phenomenon of "influencer" in the field of infertility.(6) They provided a snapshot of fertility related social media activity and the role of "influencer". While that study focused on influencers and their most commonly used hashtags; this study was designed to determine what a first time patient desiring fertility treatment may find as they begin their search on Instagram and twitter in India.

Objective

- 1) To determine prevalence, authorship and type of fertility related information on two social media platforms in India – Instagram and Twitter using hashtag and content analysis.
- 2) Comparison of content by author type (health professionals, patients, digital content creators).

II. Methods

A list of 5 hashtags consisting of fertility terms which included: IVFIndia, InfertilityIndia, FertilityIndia, IVFSuccessIndia, IVFSupportIndia was derived. These terms were chosen based on what a first time patient may search for as they gather information regarding fertility options.(6)

Our method using hashtag search and analysis were adopted from previous studies in other fields of medicine.(7,8)

The total number of posts using each hashtag was recorded via an automatic count that is generated by Instagram and twitter. Content analysis was performed on top 50 posts (If posts >50), or on all posts (If posts <50) for each hashtag. A total of 237 posts were analyzed. Authorship and content type for each hashtag was reviewed on June 27,2023. Top posts were determined by Instagram and Twitter via a proprietary algorithm consisting of parameters including the number of likes, comments and user engagement on the posts.

Content type was divided into the following categories: educational, outreach, patient experience, advertisement and others.

Educational posts included posts where the primary goal was to provide education on fertility issues, related to medical facts or a published article. Advertisement posts included promotional information about an event, product or service. Outreach posts involved posts where the author was trying to engage the user. Personal experience included personal stories and reviews. We excluded any posts that were reposts of another account or when the content of the post was not related to the topic.

Authorship categories included patients, health professionals and allied(doctors, nurses, hospitals) and digital content creators(someone who creates entertaining or educational material to be expressed through any medium or channel).

III. Results

	INSTAGRAM	TWITTER	TOTAL	PERCENTAGE
IVFIndia	10,100	27	10127	85.00%
InfertilityIndia	1094	8	1102	9.2%
FertilityIndia	632	7	639	5.3%
IVFSuccessIndia	35	1	36	0.3%
IVFSupportIndia	9	0	9	0.07%

11,913 100%

Table1: Fertility related hashtags and no. of posts on Instagram and twitter

	IVFIndia	Infertility India	Fertility India	IVFSupport India	IVFSuccess India	Total	Percentage
Educational	9+6	14+1	19+3	0+0	19+1	64	27.02%
Patient Experience	9+4	14+2	6+0	1+0	2+0	38	16.03%
Outreach	6+1	7+2	5+1	2+0	1+0	25	10.54%
Advertisement	20+13	21+2	14+3	2+0	8+0	83	35.02%
Others	5+3	3+1	6+0	4+0	5+0	27	11.39%

Table2: Content of each hashtag (Instagram+Twitter)

	IVFIndia	Infertility India	Fertility India	IVFSupport India	IVFSuccess India	Total	Percentage
Health professional and allied	46+27	38+4	29+3	4+0	35+1	187	78.90%
Patients	2+0	3+0	6+0	0+0	0+0	11	4.65%
Digital content creators	7+0	10+4	9+4	5+0	0+0	39	16.45%

Table3: Authorship of each hashtag (Instagram+Twitter)

	Health professional	Patients	Digital content creator
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	And allied		
IVFIndia	43+27= 70	0+2=2	7+0=7
InfertilityIndia	38+4=42	3+0=3	10+4=14
FertilityIndia	25+3=28	6+0=6	9+4=13
IVFSupportIndia	4+0=4	0+0=0	5+0=5
IVFSuccessIndia	35+0=35	0+1=1	0+0=0

Table4: Frequency of posts Health professionals and allied, patients, digital content creator (Instagram + Twitter)

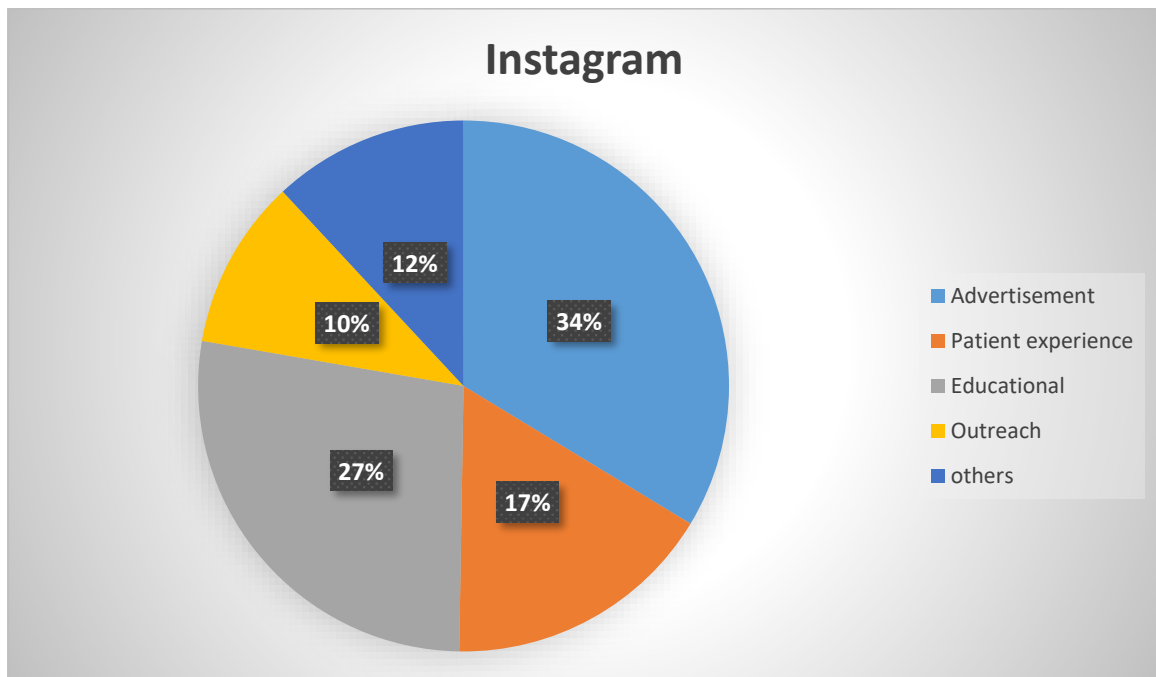


Figure1

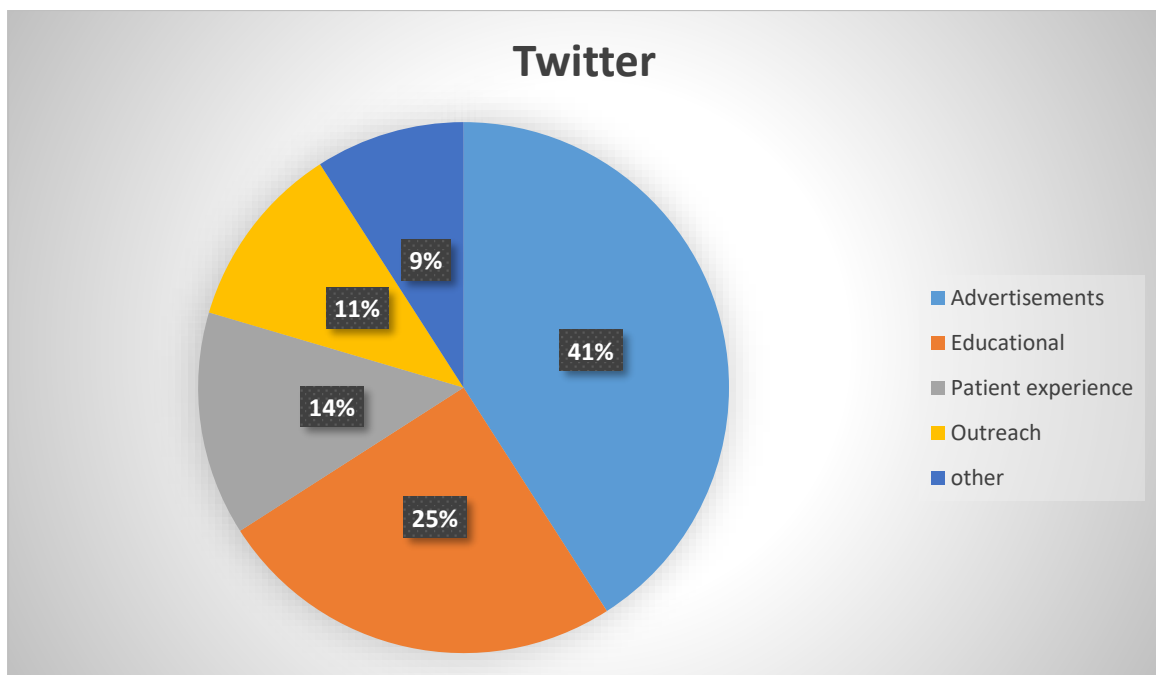


Figure2

Figure1 and Figure2: Content analysis by social media platform

IV. Discussion

Our search made way to 11,913 Posts (11,870 of Instagram, 43 of Twitter). The two most popular hashtags on both Instagram and social media were IVFIndia(10,100 posts on Instagram and 27 posts on twitter) , InfertilityIndia(1094 posts on Instagram and 8 posts on twitter). Authorship of top posts of each hashtags on both social media (N=237), Health professionals and allied (78.90%), Digital content creators (16.45%), Patients (4.65%). Of these posts, 35.02% were related to advertisements, 27.02% educational, 16.03% related to patient's experience, 10.54% outreach and 11.39% others.

We found that most frequent posts were advertisement related posts as competitions among the centers have increased.

Online social media platforms allow users to disseminate unique authentic content directly to a targeted audience. It is possible to build a "brand," accumulate a loyal group of followers, and direct them to trusted sources of information including the user's personal or clinic website. The sharing and exchange of educational, inspirational, or advocational content may lead to a more equal and improved patient-health professional relationship.

Hashtags allow patients to join online communities and enable conversations about desired health care topics outside of the clinical setting (office/hospital) and from any computer or smart device. For patients, it may be empowering to find a sense of community and have the chance to communicate with others who are going through similar processes (9-11).

Many medical societies have published guidelines on the appropriate use of social media. The American College of Obstetricians and Gynaecologists (ACOG) was one of the first to offer guidance to physicians [12]. Their recently revised committee opinion in 2019 states that social media is "not only acceptable for the modern practicing physician, but has become a necessary element for relating to patients and practicing medicine (13)."

Our study shows that fertility and infertility are a highly active area of social media. In our opinion, this activity level will continue to evolve and expand and, therefore, it may behave health professionals not only to participate in this space but also to establish themselves as effective and trustworthy communicators with their patients who are, most likely, already utilizing social media.

Strengths of our study include the large number of posts analysed and that it is one of the few studies evaluating the fertility social media web space. We have identified that people are interested in describing their experiences with IVF and that there is a relative paucity of posts authored by health professionals. However, our study has several limitations. This study was based on an evaluation of posts during a limited time frame, while social media data is continuously changing. Due to the nature of the study design, our data only represents a static moment in time and therefore does not characterize the dynamics of social media.

V. Conclusion

The power of social media has been realized in several industries, but has yet to be fully harnessed in healthcare. It will exponentially grow larger as the millennial and Gen Z generations begin to reach their reproductive prime. Our study shows that the infertility social media web space is active and healthcare professionals may be the best suited and capable to do more to engage, educate, and influence in this domain to better communicate and inform patients.

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