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# Academic tweeting in #ObGyn. Where do we stand?

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## Abstract

**Objective:** To describe the scenario of academic tweeting and utilization of Twitter by editorial board members of the leading journal in obstetrics and gynecology.

**Methods:** The Twitter presence of an editorial board members of obstetrics and gynecology journal with an impact factor greater than 4 was determined. Details of their Twitter activity, year of graduation from medical school and gender were analyzed. Median SparkScore™, an online influence measure, of journals was compared to the highest impact factor journals in medicine (*New England Journal of Medicine*, *The Lancet*, *The British Medical Journal* and *Journal of the American Medical Association*).

**Results:** In the six highest impact factor journals in obstetrics and gynecology, 92 of 240 (38.3%) editorial board members had an active Twitter account. The Twitter presence of editorial members of *Obstetrics and Gynecology* was statistically less when compared to all other journals ( $P < 0.01$ ). The median number of tweets in the last 24 h and 7 days were 0. Median SparkScore™ for the highest impact factor obstetrics and gynecology journals (24) were lower compared to the highest impact journals in medicine (66) ( $P = 0.03$ ).

**Conclusion:** Editorial board members of the six highest impact factor journals in obstetrics and gynecology are not capitalizing on the dynamic nature of Twitter and its instant convenient access from our smartphones to further academia, when compared to specialties in medicine.

There is a need for increased adoption of Twitter among physician leaders in the specialty.

**Keywords:** academia; social media; Twitter.

## Introduction

Twitter has changed the way we learn, educate and communicate in medicine. Twitter, a social media website with more than 335 million monthly active users where consumers can post tweets which contain up to 280 characters, is surfacing as one of the leading social media platforms for healthcare, with over 140 different utilities and more than 460,000 new accounts created on average per day [1, 2], ([www.pwc.com/us/en/health-industries/health-research-institute/publications/health-care-social-media.html](http://www.pwc.com/us/en/health-industries/health-research-institute/publications/health-care-social-media.html) website). The process of reporters spending days attending scientific meetings and transmitting recent advances is now reduced to “tweeting” and spreading a distilled conclusion with a photograph within seconds.

Many physician leaders [3], journals [4] and health-care organizations have now stepped beyond publications and conferences to disseminate novel science by using Twitter. More recently, academicians have adopted the use of Twitter to facilitate live discussions and debates during academic meetings [5]. A study done in the US found that pregnant women have broad access to technology and were amenable to Internet supported perinatal interventions [6]. The Centers for Disease Control and Prevention (CDC) also utilizes Twitter for dissemination of academic information [7]. However, the scenario of academic tweeting in obstetrics and gynecology has not been well described. We evaluated the utilization of Twitter by editorial board members of the leading journals in obstetrics and gynecology and compared the influence metric (SparkScore™) of these journals with other high impact journals in medicine.

## Study design

This is a descriptive study. Obstetrics and gynecology journals with a Twitter presence and impact factor greater than 4 were identified

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and the Twitter account activity of editorial board members were analyzed. Data was gathered during July–August 2018. Twitter activity parameters, year of graduation from medical school and gender were obtained. SparkScore™, an online influence metric measuring impact was acquired for all journals. SparkScore™ is a compilation measure of influence based upon average number of retweets; average number of likes; number of followers; number of lists on, and a verified Twitter account. Twitter activity between journals and demographic characteristics were assessed using chi-square ( $\chi^2$ )-test.  $P < 0.05$  was considered statistically significant. All information was publicly available and the study was exempt from Institutional Review Board review.

## Results

Of the six highest impact factor journals in obstetrics and gynecology, 92 of 240 (38.3%) editorial board members had an active Twitter account (Table 1). The Twitter presence of editorial members of *Obstetrics and Gynecology* was statistically less when compared to all other journals ( $P < 0.01$ ) (Figure 1). There was no statistically significant difference in Twitter presence among male and female physicians ( $P = 1.0$ ). Physicians with Twitter accounts had graduated more recently from medical school than ones with no presence on Twitter ( $P < 0.001$ ). The median number of tweets in the last 24 h and 7 days were

0. Median SparkScore™ for the highest impact factor obstetrics and gynecology journals (24) were lower compared to the highest impact journals in medicine namely *New England Journal of Medicine*, *The Lancet*, *The British Medical Journal*, and *Journal of American Medical Association* (66) ( $P = 0.03$ ).

## Discussion

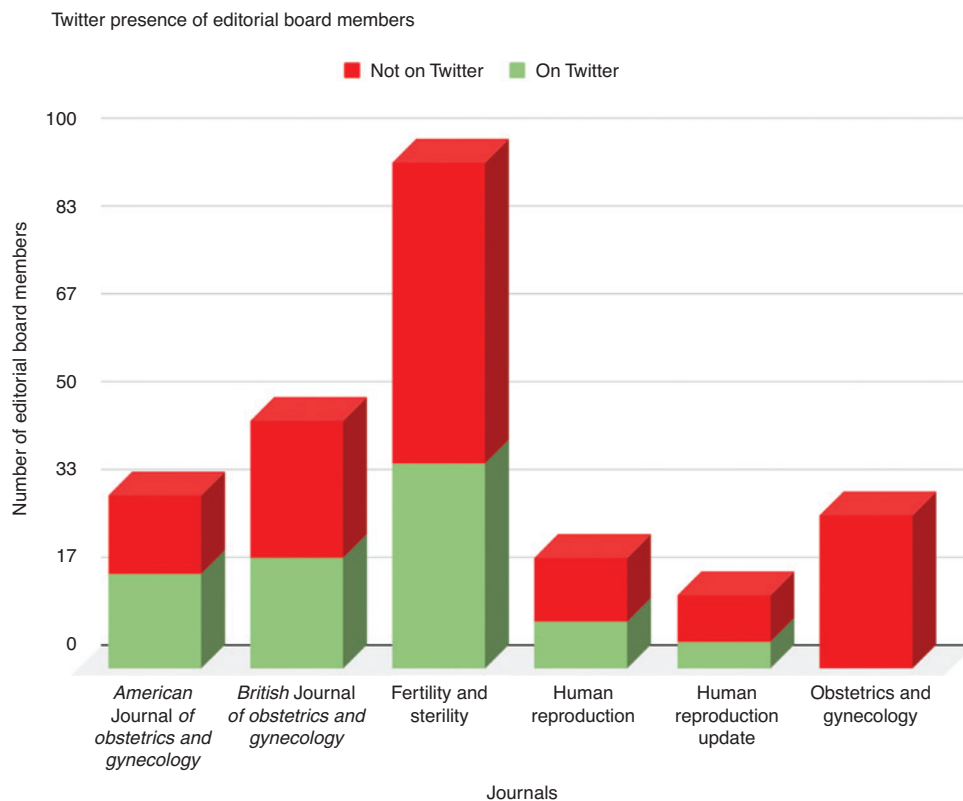
Editorial board members of the six highest impact factor journals in obstetrics and gynecology are not capitalizing on the dynamic nature of Twitter and its instant convenient access from our smartphones to further academia, when compared to other specialties in medicine. Yet, incorporation of Twitter in cardiology [3], urology [8] and radiology [5] has been well embraced.

Twitter has proven to be an effective communication and discussion tool in the field of medicine. It can be utilized to communicate with one's peers as well as the public. With the arrival of the digital age, the penetration, impact and outreach of social media is very powerful. Research articles which are tweeted are 5 times more likely to have increased citations in future publications than ones which are not [9]. Twitter journal clubs, which are moderated discussions by academic physicians

**Table 1:** Details of Twitter activity of editorial board members of highest impact journals in obstetrics and gynecology.

	Impact factor (2017)	SparkScore™	On Twitter (n=92)	Not on Twitter (n=148)	P-value
Stratified by journals					
<i>American Journal of Obstetrics and Gynecology</i>	5.732	23	18 (54.5%)	15 (45.5%)	$P < 0.01$
<i>British Journal of Obstetrics and Gynaecology</i>	5.051	27	21 (44.7%)	26 (55.3%)	
<i>Fertility and Sterility</i>	4.803	16	39 (40.6%)	57 (59.4%)	
<i>Human Reproduction</i>	4.99	NR <sup>a</sup>	9 (42.9%)	12 (57.1%)	
<i>Human Reproduction Update</i>	11.852	NR <sup>a</sup>	5 (35.7%)	9 (64.3%)	
<i>Obstetrics and Gynecology</i> <sup>b</sup>	4.982	30	0(0)	29 (100%)	
Gender					
Male			68 (38.4%)	109 (61.6%)	$P = 1.0$
Female			24 (32.9%)	39 (67.1%)	
Characteristics of physicians active on Twitter					
Years after graduation from Medical School in 2018			28 (17, 35)	32 (26, 38)	$P < 0.001$
Total number of tweets			70 (4488)		
Number of followings			63 (10,181)		
Number of followers			93 (16,436)		
Number of tweets in past 24 h			0 (0,1)		
Number of tweets in past week			0 (0,3)		

Data are n (%), or median (interquartile range). <sup>a</sup>NR, not recorded as these journals do not have a Twitter page. <sup>b</sup>*Obstetrics and Gynecology* was statistically different when compared to all other journals. No statistical differences were measured when all other journals were compared to each other.



**Figure 1:** Twitter presence of editorial board members of ObGyn journals.

focused on a specific topic using a specific hashtag are now increasingly common. Increased adoption of Twitter by both health care leaders and academic physicians is warranted. Given the global outreach of Twitter, it can be utilized to interact and collaborate with physician leaders from across the world.

By using Twitter, health policy organizations, professional journals and physician leaders, especially those that tweet links to high yield content, make it possible to create a freely available, customized and constantly updated curated source of medical information. Standardized hashtags, brief visual abstracts, e-journal clubs and ratification of Twitter by obstetrics and gynecology editorial board members could increase translation of novel scientific findings to clinical practice, thus propagating lifelong learning, research and patient care.

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