

Have you asked your patients: What is your ideal outpatient gynecology experience?

If not, consider using social media to ask. These researchers did, and they found that the perspectives expressed could help guide changes to improve patient satisfaction, well-being, and adherence to care

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There has been increasing awareness of a need for creating a more patient-centered experience with outpatient gynecology; however, very little data exist about what interventions are important to patients. Given social media's ease of use and ability for widespread access to a diverse group of users, it has the potential to be a powerful tool for qualitative research questions without the difficulties of cost, transportation, transcription, etc. required of a focus group. Crowdsourced public opinion also has the advantage of producing qualitative metrics in the form of "likes" that, at scale, can provide a

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Key points

When asked to design the optimized outpatient gynecology experience, social media users expressed:

- hospitality, comfort, and pain control as frequent themes
- preserving privacy and acknowledgement of voluntary nulliparity as frequent themes
- a desire for diverse imagery and representation related to race, LGBTQIA+ themes, age, and weight/body type within the office setting
- a call for a sense of psychological safety within gynecology

reliable measure of public support or engagement for a particular concept.¹ Particularly for topics that are controversial or novel, X (formerly Twitter, and referred to as Twitter intermittently throughout this article based on the time the study was conducted), with 300 million monthly users,² has become a popular tool for general and health care-focused content and sentiment analysis.^{3,4} This study presents a qualitative analysis of themes from a crowdsourced request on Twitter to design the ideal outpatient gynecologic experience that subsequently went "viral."^{5,6}

Why the need for our research question on patient-centered gyn care

While the body of literature on patient-centered health care has grown rapidly in recent years, a patient-centered outpatient gynecology experience has not yet been described in the medical literature.

Patient-centered office design, driven by cultural sensitivity, has been shown in other studies to be both appreciated by established patients and a viable business strategy to attract new patients.⁷ Topics such as pain control, trauma-informed care in gynecology clinics,⁸ and diverse representation in patient materials and illustrations⁹ have been popular topics in medicine and in the lay press. Our primary aim in our research was to utilize feedback from the question posed to quantify and rank patient-centered interventions in a gynecology office. These themes and others that emerged in our analysis were used to suggest best-practice guidelines for the outpatient gynecology experience (see “Checklist for ObGyn outpatient experience improvement” on page 31).

What we asked social media users. The survey query to social media users, “I have the opportunity to design my office from scratch. I’m asking women: How would you design/optimize a visit to the gynecologist’s office?” was crowd-sourced via Twitter on December 5, 2021.⁵ Given a robust response to the query, it provided an opportunity for a qualitative research study exploring social media users’ perspectives on optimizing outpatient gynecologic care, although the original question was not planned for research utilization.

What we found

By December 27, 2021, the original tweet had earned 9,411 likes; 2,143 retweets; and 3,400 replies. Of this group, we analyzed 131 tweets, all of which had 100 or greater likes on Twitter at the time of the review. The majority of analyzed tweets earned between 100–500 likes (75/131; 57.3%), while 22.9%

(30/131) had 501–1,000 likes, 11.5% (15/131) had >2,000 likes, and 8.4% (11/131) had 1,001–1,999 likes.

Identified themes within the tweets analyzed included: medical education, comfort improvements, continuity of care, disability accommodations/accessibility, economic accessibility, nonbinary/transgender care and inclusivity, general layout/floorplan, hospitality, aid for intimate partner violence, childcare accessibility, multi-disciplinary care access, pain/anxiety control, sensitivity toward pregnancy loss/fertility issues, privacy issues, professionalism, representation (subdivided into race, LGBTQIA+, age, and weight/body type), trauma-informed care, and acknowledgement of voluntary nulliparity/support for reproductive choices (**TABLE 1**, page 24). **TABLE 2** (page 25) lists examples of popular tweets by selected themes.

Frequent themes. The most frequently occurring themes within the 131 analyzed tweets (**FIGURE 1**, page 26) were:

- hospitality (77 occurrences)
- comfort improvements (75 occurrences)
- general layout/floorplan (75 occurrences)
- pain/anxiety control (55 occurrences)
- representation (53 occurrences).

Popular themes. Defined as those with more than 1,000 likes at the time of analysis (**FIGURE 2**, page 28), the most popular themes included:

- privacy issues (48.5% of related tweets with >1,000 likes)
- voluntary nulliparity (37.0% of related tweets with >1,000 likes)
- general layout/floorplan (33.4% of related tweets with >1,000 likes)
- representation (32.1% of related tweets with >1,000 likes)
- hospitality (31.3% of related tweets with >1,000 likes).

A sub-analysis of themes related to specific types of representation—race, LGBTQIA+, age, and weight/body type was performed. Tweets related to diverse weight/body type representation occurred most frequently (19 code occurrences; **FIGURE 3**, page 29). Similarly, tweets related to the representation of diverse races and the

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LGBTQIA+ community each comprised 26% of the total representation-based tweets. In terms of popularity as described above, 51.4% of tweets describing racial representation earned >1,000 likes (FIGURE 4, page 29).

Tweet demographics. Seven (7/131; 5.3%) of the tweet authors were verified Twitter users and 35 (35/131; 26.7%) authors reported working in the health care field within their Twitter profile description.

TABLE 1 Definitions of identified themes

Theme	Definition
Childcare accessibility	Issues related to childcare access for patients' children or dependents
Comfort improvements	Items or adjustments that improve the physical comfort of the patient experience (example: cloth robes instead of paper gowns)
Continuity of care	Ensuring continuity of care with a health care provider
Disability accommodations or accessibility	Issues related to the physical accessibility of an office environment for those with disabilities
Economic accessibility	Issues involving reasonable health care costs and providing a location that is accessible by way of public transportation
Nonbinary/transgender care and inclusivity	Issues and language related to care for nonbinary and transgender patients
General layout/floorplan	Physical layout of an office and floorplan as it relates to the patient experience
Hospitality	Aspects of care related to the patient experience, including coordination of care and patient support by all members of the care team
Aid for intimate partner violence	Supporting patients who have suffered from intimate partner violence or abuse, including screening for and education on proper support as a provider
Medical education	Issues related to the training of medical students, residents, and fellows in the office environment
Multi-disciplinary care access	Ability to access multiple providers or services within a single office environment or close association of office locations
Pain/anxiety control	Use of pain control techniques or anesthetics for office-based exams or procedures
Pregnancy loss/fertility issues	Awareness surrounding pregnancy loss and fertility issues, including attempting to limit exposure to those currently pregnant or images pertaining to pregnancy
Privacy issues	Protection of personal and health information, including written and verbal forms of communication
Professionalism	Maintaining a professional demeanor, including avoidance of inappropriate topics in the office environment
Representation: Age	Ensuring educational material and decor throughout the office includes representation of various ages and life stages
Representation: LGBTQIA+	Ensuring educational material and decor throughout the office includes representation of members of the LGBTQIA+ community
Representation: Race	Ensuring educational material and decor throughout the office includes representation of various races and ethnicities
Representation: Weight/body type	Ensuring educational material and decor throughout the office includes representation of various body types
Trauma-informed care	Training of all care providers in trauma-informed care and screening for PTSD, including as it relates to sensitive exams
Acknowledgement of voluntary nulliparity	Support for people who do not desire to become pregnant and/or do not desire to parent

Abbreviations: LGBTQIA+, lesbian, gay, bisexual, transgender, queer, intersex, asexual; PTSD, posttraumatic stress disorder.

Implementing our feedback can enhance patient experience and care

Our study provides a unique view of the patient perspective through analyzed crowd-sourced public opinion via Twitter. To our knowledge, an optimized patient-centered outpatient gynecology experience has not

previously been described in the medical literature. Optimizing the found domains of hospitality, comfort measures, pain and anxiety control, privacy, and diverse representation in the outpatient gynecologic experience within the outpatient care setting may ultimately result in improved patient satisfaction, patient well-being, and adherence to care through

TABLE 2 Examples of tweets by theme

Associated theme(s)	Tweet	Number of "likes"
Pain/anxiety control	@eschatomato - From my non-Twitter-using wife: offer painkillers. Don't make people ask/have to know to ask. Anyone getting a cervical biopsy should be offered the same suite of painkillers and anxiety drugs I was for my vasectomy.	5,314
Representation: Race, privacy issues	@KimEMPA2019 - Please have images of Black women in the office. I haven't visited a gynecologist office yet with this type of representation. Also, privacy is key. I shouldn't fear that the door will swing open exposing me in the middle of my examination.	6,061
Acknowledgement of voluntary nulliparity	@ejdowney72 - Believe a woman if she says she does not want children. I knew 25 years ago, and was denied this service. I still do not have children. Also my weight is not the only factor about my health. Don't talk like I'm not there.	3,776
Comfort improvements	@mgbrock - I once went to an OB/GYN office that had a light switch (reachable from exam table) that lit up outside the door to let provider know I was changed. Significantly decreased wait time sitting in gown since no one was guessing if I was ready.	7,430
Hospitality, professionalism	@daveiedgerwood - Don't discuss care or diagnoses when people are naked, I remember how much more respected and comfortable I felt when a new gynaecologist introduced himself to me while I was clothed, did the exam, then had me get dressed and meet him in his office to discuss care! Much better!	2,290
Pregnancy loss/fertility issues, general layout/floorplan	@kaynani32 - While a significant portion of your practice is OB care and it may be nice for expectant moms with other children to have toys for kids, not everyone is there for happy reasons. Perhaps a separate waiting area for 2nd/3rd trimester OB vs 1st trimester/infertility/non-OB care?	3,798
Pain/anxiety control, representation	@HannantheWolf - Also offer pain relief/sedation/numbing for colposcopies and IUD insertions. That shit is apocalyptically painful for a lot of us. Buy art from local artists, not hotel art. Have marginalized folks on your staff and support them. Let us see people like us in your office.	2,497
Aid for intimate partner violence	@OkayestWorld - I would also add to the bathroom a nonverbal way to indicate if someone feels unsafe with the person they are with, for example a different colored marker to write on UA cup. Bathroom might be the only place they can separate without the other person being suspicious.	630
Trauma-informed care	@gishmi1ish - Trauma-informed care. Assume that most of your patients will have experienced unwanted physical contact at some point in their lives. Ask before touching, inserting, pressing, etc—and DO NOT MOVE until patient says they're ready	474
Privacy issues	@lunaphoenixAK - Do not make the end of the exam table face the door and have a curtain! I worked at a clinic where every room was the opposite of what I'm suggesting and it was horrible and embarrassing!!!!	1,604

Abbreviations: IUD, intrauterine device; UA, urinalysis.

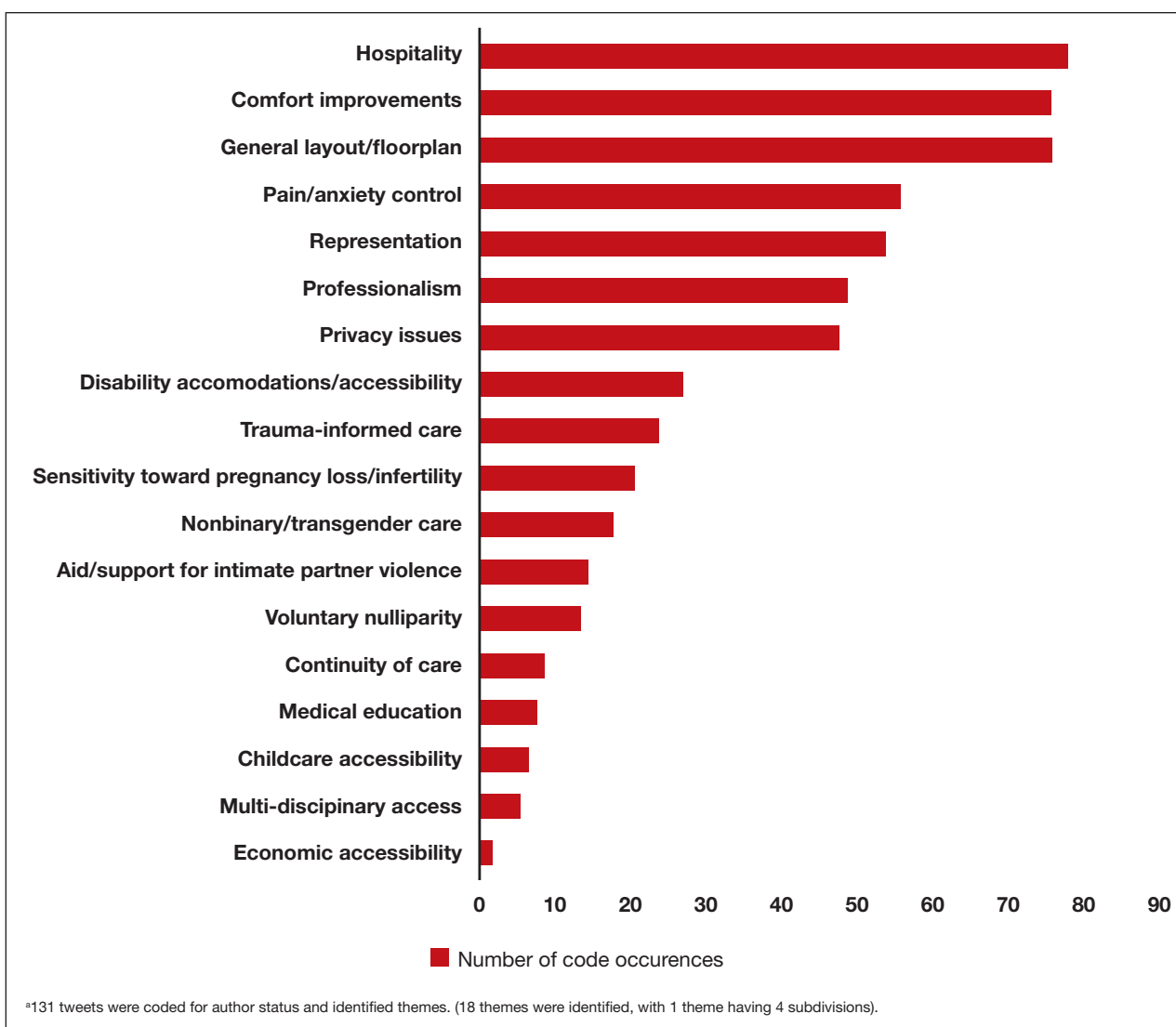
maximizing patient-centered care. We created a checklist of suggestions, including offering analgesics during office-based procedures and tailoring the floorplan to maximize privacy (FIGURE 5, page 30), for improving the outpatient gynecology experience based on our findings.

Prior data on patient satisfaction and outcomes

Improving patient satisfaction with health care is a priority for both clinicians and hospital systems. Prior studies have revealed only

variable associations between patient satisfaction, safety, and clinical outcomes. One study involving the analysis of clinical and operational data from 171 hospitals found that hospital size, surgical volume, and low mortality rates were associated with higher patient satisfaction, while favorable surgical outcomes did not consistently correlate with higher Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores.¹⁰ Smaller, lower-volume hospitals earned higher satisfaction scores related to cleanliness, quietness, and receiving help

FIGURE 1 Frequency of individual themes as expressed in analyzed and coded tweets



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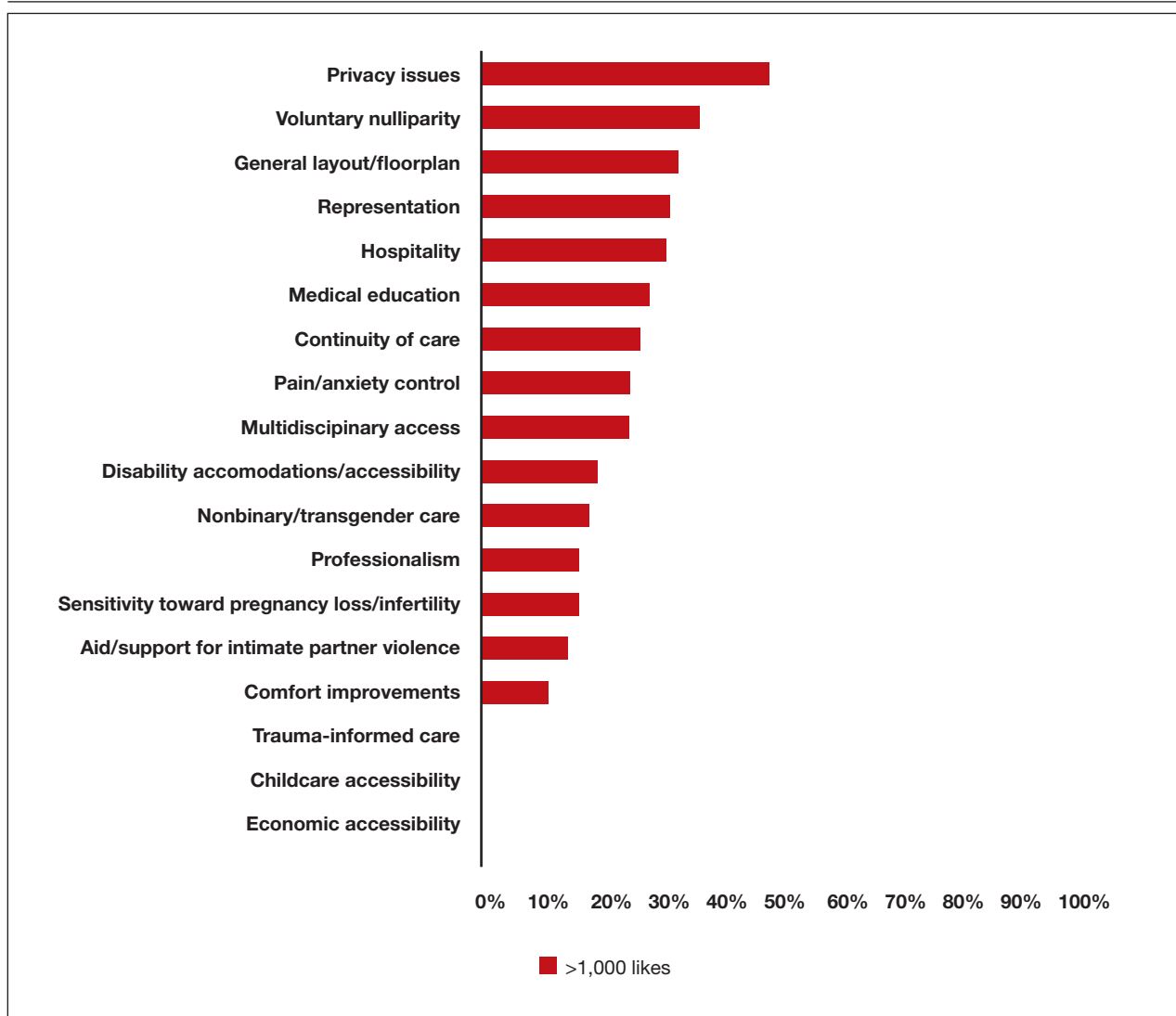
CONTINUED FROM PAGE 26

measures.¹⁰ It has also been shown that the strongest predictors of patient satisfaction with the hospital childbirth experience included items related to staff communication, compassion, empathy, and respect.¹¹ These data suggest that patient satisfaction is likely more significantly impacted by factors other than patient safety and effectiveness, and this was supported by the findings of our analysis. The growing body of literature associating a sense of psychological and physical safety within the health care system and improved patient outcomes and experience suggests that the data gathered from public

commentary such as that presented here is extremely important for galvanizing change within the US health care system.

In one systematic review, the relationship between patient-centered care and clinical outcomes was mixed, although generally the association was positive.¹² Additionally, patient-centered care was often associated with increased patient satisfaction and well-being. Some studies suggest that patient well-being and satisfaction also may be associated with improved adherence and self-management behaviors.^{12,13} Overall, optimizing patient-centered care may lead to improved

FIGURE 2 Percentage of theme-related tweets with > 1,000 “likes”



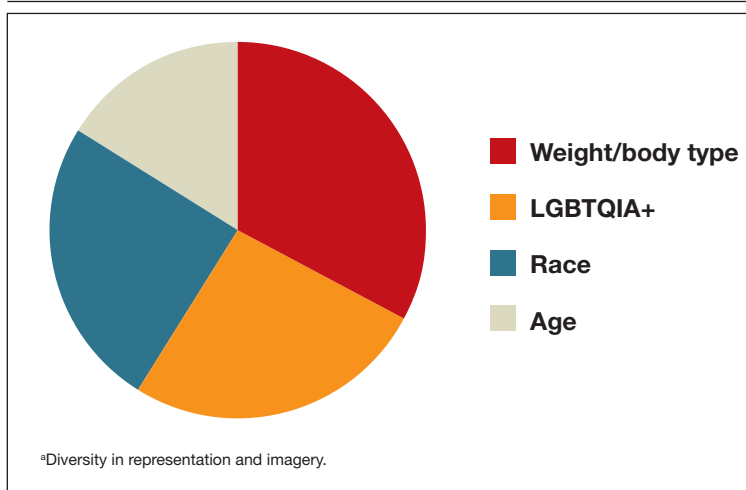
patient satisfaction and potentially improved clinical outcomes.

Additionally, increasing diverse representation in patient materials and illustrations may help to improve the patient experience. Louie and colleagues found that dark skin tones were represented in only 4.5% of 4,146 images from anatomy texts analyzed in 2018.¹⁴ Similarly, a photogrammetric analysis of medical images utilized in *New England Journal of Medicine* found that only 18% of images depicted non-white skin.¹⁵ More recent efforts to create a royalty-free digital gallery of images reflecting bodies with diverse skin tones, body shapes, body hair, and age as well as transgender and non-binary people have been discussed in the lay press.⁹ Based on our findings, social media users value and are actively seeking diversity in representation and imagery during their outpatient gynecology experience.

Opportunities for future study

Our research utilized social media as a diverse and accessible source of information; however, there are significant opportunities to refine the methodologic approach to answering the fundamental question of creating the patient-centered gynecologic experience. This type of study has not yet been conducted; however, the richness of the information from this current analysis could be informative to

FIGURE 3 Relative frequency of representation^a themes



survey creation. Future research on this subject outside of social media could bolster the generalizability of our conclusions and the ability to report on qualitative findings in the setting of known patient demographics.

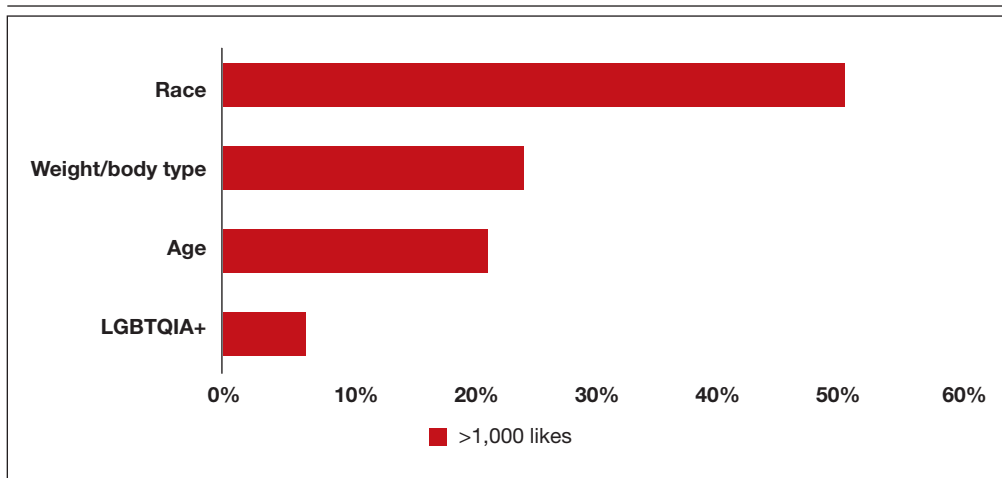
Social media remains a powerful tool as evidenced by this study, and continued use and observation of trending themes among patients is essential. The influence of social media will remain important for answering questions in gynecology and beyond.

Our work is strengthened by social media's low threshold for use and the ability

FAST TRACK

Future study should examine ways to implement the suggested improvements to the office setting cost effectively

FIGURE 4 Percentage of representation-themed tweets with >1,000 "likes"



Qualitative study methods

The data abstracted was analyzed with Dedoose¹ software using a convenience sample and a mixed-methods analysis. Utilizing X (formerly Twitter and referred here as such given the time the study was conducted) for crowdsourcing functions similarly to an open survey. In the absence of similar analyses, a modified Checklist for Reporting Results of Internet E-Surveys (CHERRIES) checklist was utilized to organize our approach.²

This analysis was comprised of information freely available in the public domain, and the study was classified as IRB exempt. Ethical considerations were made for the fact that this is open access information and participants can reasonably expect their responses to be viewed by the public.³ As this question was not originally intended for research purposes, there was not a formalized development, recruitment, or consent process. The survey was not advertised beyond the original posting on Twitter, and the organic interest that it generated online. No incentives were offered to participants, and all participation was voluntary. There is no mechanism on Twitter for respondents to edit their response, although responses can be deleted. Unique visitors or viewers beyond posted impressions in response to the original tweet could not be determined.

Twitter thread responses were reviewed, and all completed and posted responses to the original Twitter query with 100 or greater “likes” were included in the analysis. These tweets were abstracted from Twitter between December 17, 2021, and December 27, 2021. At the time of tweet abstraction, engagement metrics, including the numbers of likes, retweets, and replies, were recorded. Additionally, author

characteristics were abstracted, including author verification status and association with health care, as described in their Twitter profile. Definition of an individual associated with health care was broad and included physicians, advanced practice providers, nurses, first responders, and allied health professionals.

A total of 131 tweets met inclusion criteria and were uploaded for analysis using Dedoose qualitative analytic software.¹ Two authors independently utilized a qualitative analysis to code the isolated tweets and identify thematic patterns among them. Uploaded tweets were additionally coded based on ranges of likes: 100-500; 501-1,000; 1,001-1,999; and >2,000. Tweets were coded for author verification status and whether or not the author was associated with the health care field. Themes were identified and defined during the coding process and were shared between the two authors. A total of 18 themes were identified, with 1 theme having 4 subdivisions. Interrater reliability testing was performed using Dedoose¹ software and resulted with a pooled Cohen’s Kappa of 0.63, indicating “good” agreement between authors, which is an adequate level of agreement per the Dedoose software guidelines.

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for widespread access to a diverse group of users. Additionally, social media allows for many responses to be collected in a timely manner, giving strength to the abstracted themes. The constant production of data by X users and their accessibility provide the opportunity for greater geographic coverage in those surveyed.⁴ Crowdsourced public opinion also has the advantage of producing qualitative metrics in the form of likes and retweets that may provide a reliable measure of public support or engagement.¹

Future studies should examine ways to implement the suggested improvements to the office setting in a cost-effective manner and follow both subjective patient-reported outcomes as well as objective data after implementation, as these changes may have implications for much broader public health crises, such as maternal morbidity and mortality.

Study limitations. Our study is limited by the inherent biases and confounders associated with utilizing data derived from

FAST TRACK

Crowdsourced public opinion gathered through social media has the advantage of producing qualitative metrics in the form of likes and retweets that may provide a reliable measure of public support or engagement

social media. Specifically, not all patients who seek outpatient gynecologic care utilize social media and/or X; using a “like” as a surrogate for endorsement of an idea by an identified party limits the generalizability of the data.

The initial Twitter query specified, “I’m asking women”, which may have altered the intended study population, influenced the analysis, and affected the representativeness of the sample through utilizing non-inclusive language. While non-binary/transgender care and inclusivity emerged as a theme discussed with the tweets, it is unclear if this represents an independent theme or rather a reaction to the non-inclusive language within the original tweet. ●

FIGURE 5 Checklist for ObGyn outpatient experience improvement

- ☑ Offer pain control options for all exams and office-based procedures (including medication and local anesthetic where appropriate)
- ☑ Training for all staff related to trauma-informed care and screening for intimate partner violence
- ☑ Ensure decor, media, and educational materials throughout the office offer diverse imagery, including age, race, weight, gender identity, and LGTBQIA+ representation
- ☑ Offer a private restroom and changing space when able, including private space to store clothes during sensitive exams
- ☑ Obtain patient consent before obtaining weight or conducting a sensitive exam
- ☑ Do not have exam tables face the exam room door
- ☑ When able, offer cloth gowns and sheets rather than paper

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