

LETTERS TO THE EDITOR

RESEARCH

Social media livestreaming to disseminate geriatrics research

INTRODUCTION

Social Media is an ever-evolving source for people to obtain medical and aging-related information.^{1–3} Health-related forums have shown that both providers and patients are using social media.^{4,5} With some less than credible sources present in social media,⁶ it is critical that evidence-based geriatrics research be disseminated. Social media livestreaming has made the leap into mainstream usability, with new functionality enabling users to provide information, have discussions, and interact directly with other users. Platforms like Twitter, Facebook, and Instagram have integrated livestreaming into their functionality. We sought to use a livestreaming Twitter Spaces platform to disseminate geriatrics updates from the 2022 American Geriatrics Society Annual Scientific Meeting.

METHODS

Twitter Spaces content

While attending the 2022 American Geriatrics Society Annual Meeting, which occurred May 12–14, 2022 in Orlando, Florida, the authors and other attendees live tweeted innovative research findings, policy updates, and notable educational innovations under the #AGS22 designation. Selecting from the highest liked and most retweeted #AGS22 findings, livestreaming content was distilled into three themes: Medication management, Clinical practice, and COVID-19 related. Each theme had between 3 and 5 new or practice changing geriatrics “take-away” points (Figure 1).

Setting up the social media livestream

Twitter Spaces is free to use and available to the public through the Twitter platform. Instructions for

setting up a Twitter Spaces is available online.⁷ Co-hosts have the functionality to invite other to become speakers during question-and-answer sessions. The livestream session was set for May 24, 2022—about 10 days after the end of the #AGS22 conference—for 30 min during lunchtime (CST) and promoted 1 week prior on the institutional and co-author twitter accounts. Once the live Twitter Spaces event ends, a recording is immediately available for anyone to listen to in the following 30 days. Twitter also retains audio copies for review for spam and abuse.

RESULTS

The Twitter Spaces livestreaming session entitled “Lightning Rounds: Updates from #AGS22” was held on May 24th, 2022 from 12:30 to 1:00 p.m. (CST). In lead up to the session, social media posts about the event revealed 8752 impressions. An international audience of 10 people attended the livestream event and an additional 71 people listened to the recording in the following 2 days. Barriers were identified prior to the livestream in that many Twitter users had never heard of TwitterSpace. Direct messages were received by the co-authors from interested attendees about “What is twitter spaces?,” “How do I join?,” “Where is the link?” Social media posts in response to these questions (e.g., “Want to participate in our upcoming Twitter Spaces? Check out this short video on how to join the conversation.”) resulted in 1505 impressions and 71 engagements. Feedback was generally positive (e.g., “Great session! I enjoyed it!”). Among the combined speakers and institution twitter feeds about the event, there were 13,903 overall total impressions and 355 total engagements, as of 2 days following the event.

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial License](#), which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

© 2022 The Authors. *Journal of the American Geriatrics Society* published by Wiley Periodicals LLC on behalf of The American Geriatrics Society.

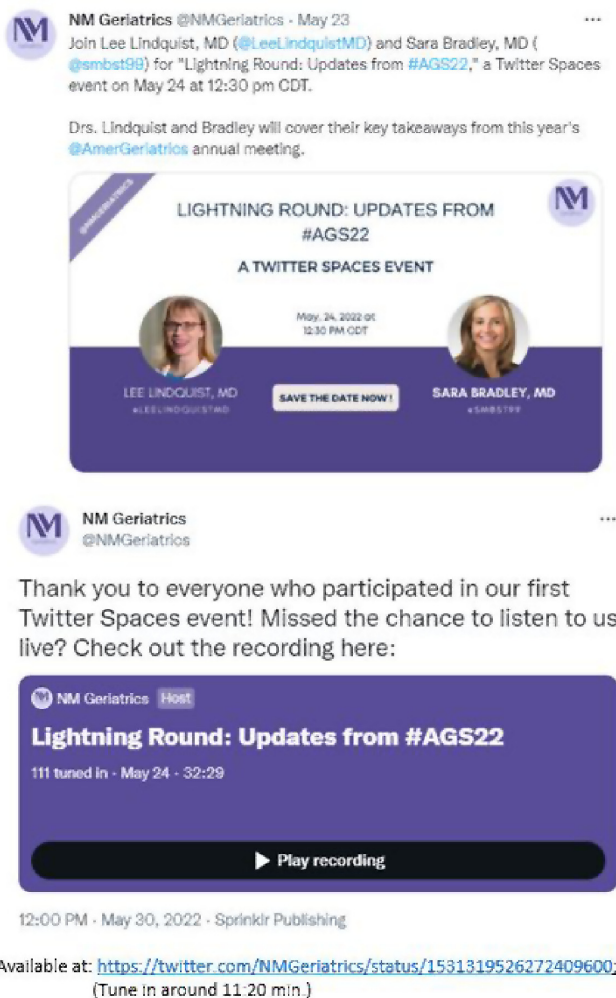


FIGURE 1 Twitter Spaces example event and recording

DISCUSSION

We present the novel use of a social media livestream, via Twitter Spaces, as a feasible means of disseminating geriatrics research findings and other updates. Social media livestreaming can be leveraged by geriatrics and aging-related researchers, educators, and policy makers to present and highlight their work or study findings, encourage adoption of clinical innovations, and raise awareness of updates related to the care of older adults. As livestreaming on twitter is fairly new, many users required directions on participation, which appeared to be a barrier and may improve with subsequent use. Those who wish to listen to the recording can access it through this link: <https://twitter.com/NMGeriatrics/status/1531319526272409600> but should advance to 11:20 as the first part is the time spent organizing. As of this writing, the recording is saved on Twitter for 30 days following the event but hosts can download copies for further use.⁷ Future directions could include Journal twitter accounts having authors discuss

their research findings live, elevating twitter geriatrics medical education rounds, and connecting international geriatricians to discuss global issues. Social media livestreaming is a feasible means of disseminating geriatrics.

AUTHOR CONTRIBUTIONS



All authors met criteria for authorship by (1) *Conception and design of the study*: Lee A. Lindquist, Sara A. Bradley, Vanessa Horn Bafia, Lauren French; (2) *Data acquisition*: Lee A. Lindquist, Vanessa Horn Bafia, Lauren French; (3) *Analysis and interpretation of data*: Lee A. Lindquist, Sara A. Bradley, Vanessa Horn Bafia; (4) *Manuscript drafting*: Lee A. Lindquist, Sara A. Bradley, Vanessa Horn Bafia; (5) *Revising the manuscript critically for important intellectual content*: All authors; (6) *Approval of the version of the manuscript to be published*: All authors.

CONFLICT OF INTEREST

All authors declare no conflict of interest.

SPONSOR'S ROLE

None.

Sara A. Bradley MD¹
 Vanessa Horn Bafia BA²
 Lauren French BA²
 Lee A. Lindquist MD, MPH, MBA¹  

¹*Division of Geriatrics, Feinberg School of Medicine, Northwestern University, Chicago, Illinois, USA*
²*Northwestern Medicine, Chicago, Illinois, USA*

Correspondence

Lee A. Lindquist, Division of Geriatrics,
 Northwestern University, Feinberg School of Medicine,
 750 North Lake Shore Drive, 10th Floor,
 Chicago, IL 60611, USA.
 Email: lal425@northwestern.edu

ORCID

Lee A. Lindquist  <https://orcid.org/0000-0002-4290-5081>

TWITTER

Lee A. Lindquist  [@LeeLindquistMD](https://twitter.com/leeLindquistMD)

REFERENCES

- Lam NH, Woo BK. Exploring the role of YouTube in delivering dementia education to older Chinese. *Asian J Psychiatr*. 2018;31:25-26.
- Lindquist LA, Ramirez-Zohfeld V. Visual abstracts to disseminate geriatrics research through social media. *J Am Geriatr Soc*. 2019;67:1128-1131. doi:[10.1111/jgs.15853](https://doi.org/10.1111/jgs.15853)

- Dunn PH, Woo BKP. Social media's role in the dissemination of health information. *J Am Geriatr Soc.* 2019;67(9):1989-1990. doi:10.1111/jgs.16070
- Mehta N, Zhu L, Lam K, et al. Health forums and twitter for dementia research: opportunities and considerations. *J Am Geriatr Soc.* 2020;68(12):2881-2889. doi:10.1111/jgs.16790
- Cherian R, Le G, Whall J, Gomez S, Sarkar U. Content shared on social media for national cancer survivors day 2018. *PLoS One.* 2020;15(1):e0226194. doi:10.1371/journal.pone.0226194
- Vilella S, Semeraro A, Paolotti D, Ruffo G. Measuring user engagement with low credibility media sources in a controversial online debate. *EPJ Data Sci.* 2022;11(1):29. doi:10.1140/epjds/s13688-022-00342-w
- Twitter Spaces Hosting Help. Accessed June 16, 2022. <https://help.twitter.com/en/using-twitter/spaces-hosting>

DOI: 10.1111/jgs.17961

Thyroid hormone use and overuse in dementia: Results from the Health, Aging and Body Composition Study

INTRODUCTION

Overt hypothyroidism, with elevated thyrotropin (TSH) and low thyroid hormone (TH), is a rare but reversible cause of cognitive dysfunction, often screened for during dementia evaluations.¹ Such testing identifies what is often called “subclinical hypothyroidism” (elevated TSH and normal TH) in 15%–20% of older adults.² Isolated TSH elevation has not been associated with significant cognitive effects,³ and thyroid hormone treatment trials in older adults have not shown benefit for cognitive symptoms⁴ or endpoints.⁵ Many studies,⁶ but not all,³ have found the opposite: higher incident cognitive dysfunction with lower TSH and higher TH. Importantly, low TSH is often iatrogenic,⁷ which may account for some heterogeneity in the literature. For example, TSH in the Health, Aging, and Body Composition Study (HealthABC) predicted incident dementia when exogenous thyrotoxicosis was included.⁸

We hypothesize that aggressive case finding in those with early signs of cognitive dysfunction leads to detection and treatment of isolated TSH elevation, increasing the risk of iatrogenic thyrotoxicosis, and potentially accelerating cognitive decline. With millions of individuals older than 70 years of age living with various forms of dementia, understanding the impact of clinical practice patterns can help clinicians start to individualize their approach to TSH elevation in older adults with dementia, which is critical to optimizing care.

METHODS

We assessed the relationship between TSH level, thyroid hormone use, and dementia diagnosis in HealthABC, a longitudinal study of 3075 healthy volunteers aged 70–79 living independently in Memphis, Tennessee and Pittsburgh, Pennsylvania starting in 1997–1998.⁸ Briefly, all participants had baseline Modified Mini-Mental Status

scores ≥ 78 . TSH was measured in Year 2, with free T4 measured for a TSH < 0.45 or > 7.0 mIU/L. Medication review and dementia diagnosis were performed annually. Our study included Year 2 visits with a measured TSH not on anti-thyroid medications ($n = 2798$). None were missing dementia status, seven (0.25%) were missing medication information. Thyroid function categorizes included: euthyroid (TSH; 0.45–4.49 mIU/L), high TSH (TSH > 4.5 mIU/L), low TSH (TSH < 0.45 mIU/L). Multinomial logistic regression was performed using STATA[®] (16.0 IC, College Station, TX).

RESULTS

Dementia prevalence in Year 2, was 2.3% (62/2798) and did not differ by race, sex, smoking status or site (data not shown). Those with dementia were older (76 vs 75 years, $p < 0.01$) and had a lower BMI (26 vs 27, $p = 0.04$) than those without dementia. There was a notable, but non-significant, higher percentage of thyroid hormone use with a dementia diagnosis (12.9% vs 9.8%, $p = 0.4$). Dementia was associated with a lower likelihood of high TSH and a higher likelihood of low TSH (4.8% vs 11.7% and 8.1% vs 3.2% respectively, $p < 0.04$), as illustrated in Figure 1. None of the 23 participants with overt hypothyroidism had a dementia diagnosis.

In adjusted models, thyroid hormone supplementation was associated with increased risk of both over-treatment (RRR = 9.9, 95% CI 6.2–15.6) and under-treatment (RRR = 2.4, 95% CI 1.7–3.3; Table 1). Each year of age increased the risk of having a low TSH by 19% compared to being euthyroid (RRR = 1.2, 95% CI 1.0–1.2). Women were at greater risk of both low TSH (RRR = 1.9, 95% CI 1.2–3.1) and high TSH (RRR = 1.3, 95% CI 1.0–1.6) compared to men.