

Assessing the impact of Twitter on rare disease manuscript citations and Altmetric attention scores

Claire Hews,¹ Marielle Brown,¹ Isabel Katz² and Sarah J Clements¹

¹Costello Medical, Cambridge, Cambridgeshire, UK; ²Costello Medical, Boston, Massachusetts, USA

Study Overview

MEDLINE and Embase were searched to identify rare disease manuscripts published in March 2019

Searches yielded 133 manuscripts ...

133

... of which 80 fulfilled the inclusion criteria

80

29 manuscripts had an associated tweet from the journal or publisher*

29

*One manuscript was excluded as an outlier

Objective

The dissemination of research via social media sites, such as Twitter, is increasingly common among research and healthcare communities.¹⁻³

Here, we present the results of a targeted literature search investigating the impact of Twitter coverage on the number of citations and Altmetric attention scores of rare disease manuscripts.

Methods

Eligible rare disease manuscripts reported results in humans and were written in English (Study Overview).

- Dissemination was quantified using Altmetric data collected between 28th September and 3rd October 2021.
- We report overall number of tweets, number of citations and Altmetric attention scores.
- The number of citations was recorded using Dimension citation data.

Conclusions

Our findings suggest that manuscripts with a tweet from a journal/publisher may receive more overall attention, as assessed here by Altmetric attention score and number of citations.

This research has important implications for the use of Twitter as a tool to enable manuscripts to reach a wider audience. However, it is important to note that the dissemination of research via social media must adhere to appropriate compliance and ethical guidelines, and this may limit its use more widely.



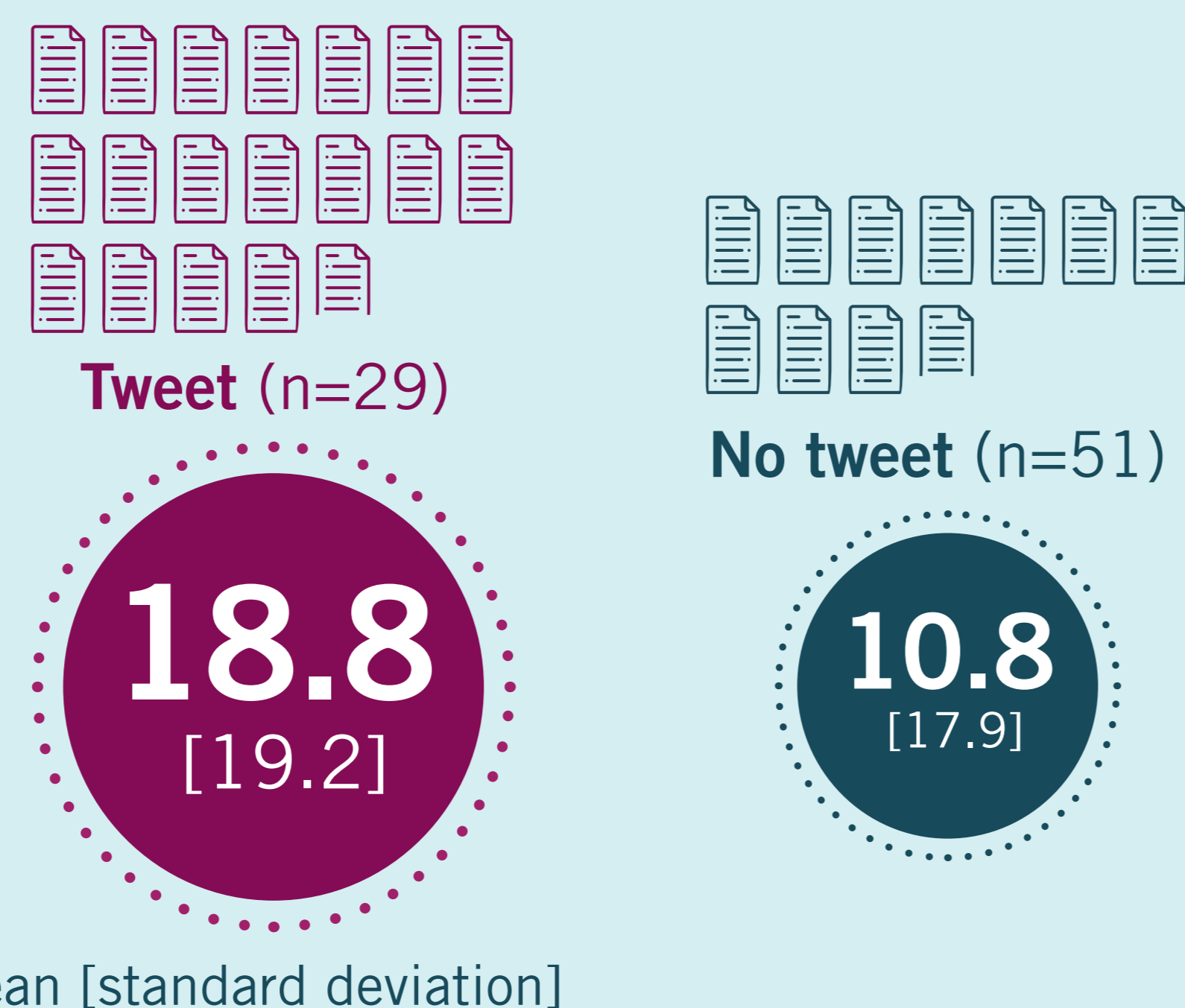
Results

Most common types of manuscripts

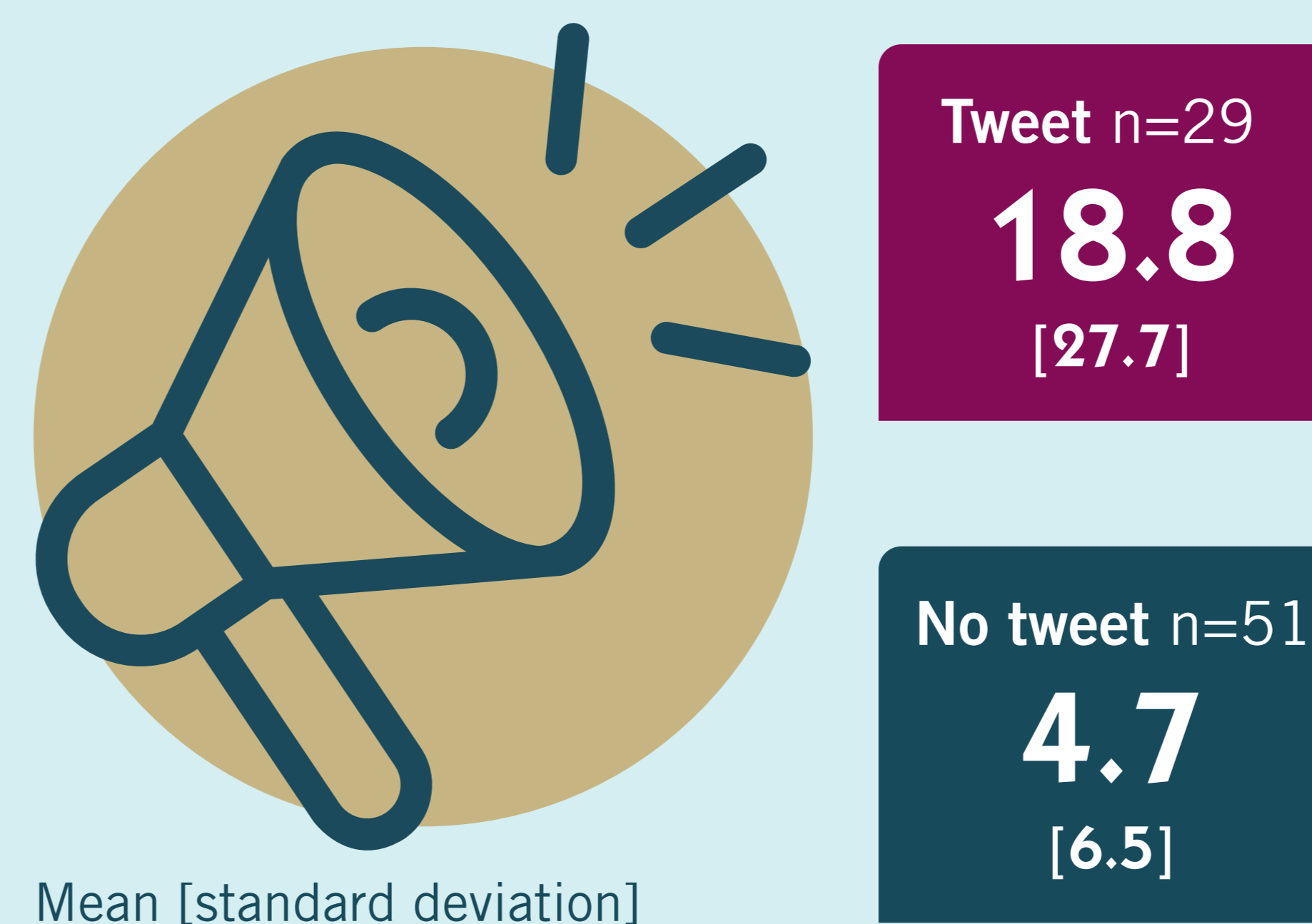


- Top 3 types of manuscript with a tweet were:
- Primary research papers (n=7)
 - Retrospective studies (n=5)
 - Reviews (n=5)

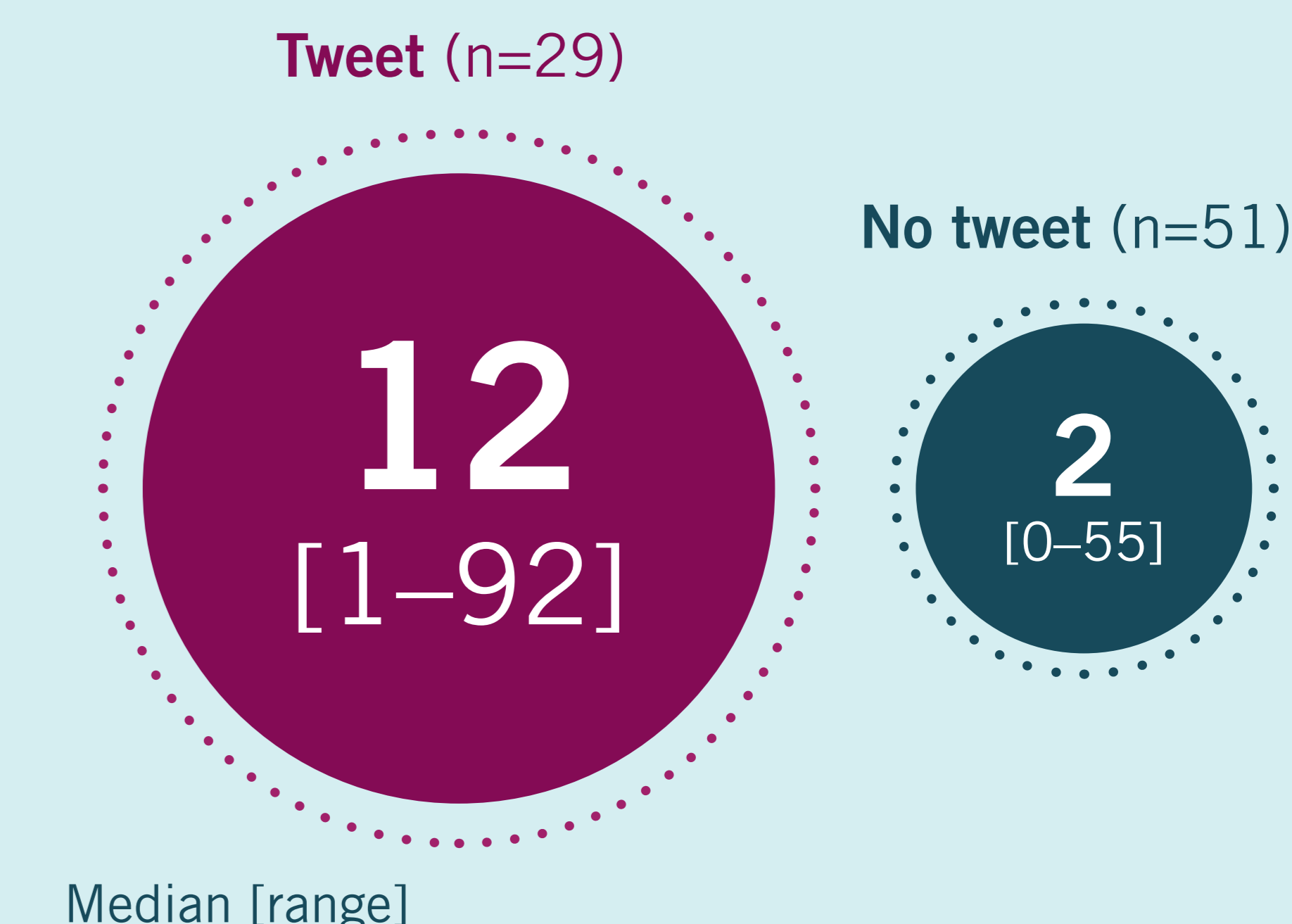
Number of citations



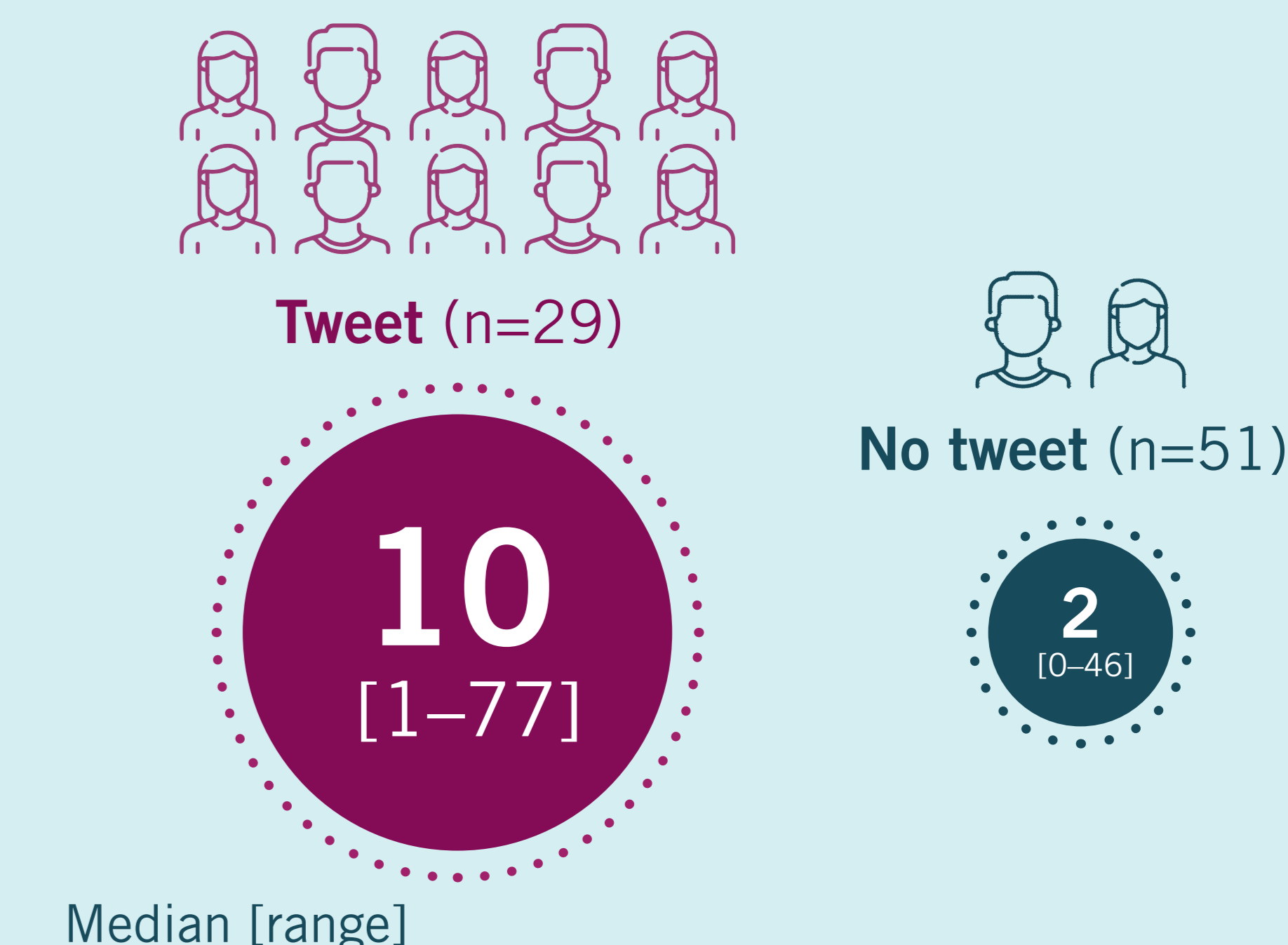
Altmetric attention score



Number of overall tweets



Number of unique tweeters



References

1. Thompson MA *et al.* *Curr Hematol Malig Rep.* 2015;10(4):405-12; 2. Pemmaraju N *et al.* *Curr Hematol Malig Rep.* 2017;12(6):598-604; 3. Dol J *et al.* *J Med Internet Res.* 2019;21(11):e13687.

Author Contributions

Substantial contributions to study conception/design, or acquisition/analysis/interpretation of data: CH, MB, IK, SJC; Drafting of the publication, or revising it critically for important intellectual content: CH, MB, IK, SJC; Final approval of the publication: CH, MB, IK, SJC.

Disclosures

CH, MB, IK and SJC: Employees of Costello Medical.

Acknowledgements

The authors would like to acknowledge the Costello Medical Design Team for graphic design support.