



## Short Communication

## A jab is not a vaccine; it's a 'shot'

Zsófia Demjén<sup>a,\*</sup>, Elena Semino<sup>b</sup>, Richard Gleave<sup>c</sup><sup>a</sup> UCL Centre for Applied Linguistics, University College London, 20 Bedford Way, London, WC1H 0AL, UK<sup>b</sup> Department of Linguistics and English Language, Lancaster University, UK<sup>c</sup> Scientific Strategy and Evidence, UK Health Security Agency and Oxford University, UK

## ARTICLE INFO

## Keywords:

vaccine hesitancy  
terminology  
colloquialism  
public health campaigns  
online communication

## ABSTRACT

**Objectives:** Previous work identified a new type of vaccine scepticism on social media centred around questioning the status of the COVID-19 vaccine as a vaccine, partly by contrasting 'vaccine' with 'shot'. This study aimed to investigate whether this scepticism also manifests with a contrast between 'vaccine' and 'jab', a term more commonly used in parts of the United Kingdom.

**Study design:** Corpus-based discourse analysis.

**Methods:** Using a corpus of 261,203 tweets focused on the MMR vaccine, we used collocations and concordancing to identify instances of 'jab' and its variants that co-occurred with references to COVID-19. We qualitatively examined 50 % of the relevant tweets (n = 319) to identify any that undermined the status of the COVID-19 vaccines as vaccines.

**Results:** 18 % (n = 59) of the examined tweets used 'jab' to undermine the status of the COVID-19 vaccine as a vaccine. A 'jab' was seen as inferior to a 'vaccine' on the basis that it did not prevent infection. Although this contrast mostly focused on the COVID-19 vaccine, some tweets also referenced the flu vaccine as another example that is therefore not a vaccine.

**Conclusions:** Our analysis showed that 'jab' and its variants are seen to indicate an intervention that is inferior to vaccination, similarly to 'shot' in previous work. This evidence suggests that 'jab' and its variants are best avoided in public health campaigns designed to encourage uptake of vaccinations in the UK.

## 1. Introduction

Vaccine hesitancy, 'a state of indecisiveness regarding a vaccination decision',<sup>1</sup> is a problem affecting vaccination programmes around the globe. One contributor to this phenomenon can be the characteristics of specific vaccines.<sup>2</sup> However, little is known about how attitudes to one vaccine might impact attitudes to another nor what role the specific terms we use for vaccinations might play. In this paper, we build on Semino et al.<sup>3</sup> which explored how people on X/Twitter (hereafter Twitter) evaluated the COVID-19 and MMR vaccines in relation to each other in 2020–2022 and discovered a new type of vaccine scepticism grounded in these evaluations.

Semino et al.<sup>3</sup> identified tweets where the MMR and COVID-19 vaccines are both mentioned and manually coded a random sample of 12 % (n = 2794) to establish how MMR and COVID-19 are discussed together. They revealed a pattern where people undermined the status of the COVID-19 vaccine as a vaccine on the basis of a comparison with the MMR vaccine in terms of effectiveness against infection. A significant

subset of such tweets used the term 'shot' in contrast with 'vaccine' to make this point and some brought the flu shot into the argument too (Example 1):

1. Vaccine: Polio, MMR, smallpox. You don't have to get them again and you won't get the disease. Shot: Tetanus, flu, Covid. You have to keep getting them because they aren't a cure because there is no cure, especially for a coronavirus. Stop calling it a vaccine. It's a shot.

'Shot' is an informal term most commonly used in North America in the context of vaccinations. In this short report we build on Semino et al.<sup>3</sup> and ask the question: Does 'jab' – a colloquial term more commonly used in some parts of the UK – carry similar associations to 'shot' in the same data set?

## 2. Methods

Using Semino et al.'s<sup>3</sup> Twitter MMR corpus, where all tweets (n =

\* Corresponding author.

E-mail address: [z.demjen@ucl.ac.uk](mailto:z.demjen@ucl.ac.uk) (Z. Demjén).

261,203) contained a mention of MMR (full details in the original paper), uploaded to the corpus linguistic tool CQPweb (<https://cqpweb.lancs.ac.uk>), we searched for the string ‘covid\*’ to identify tweets that mentioned both MMR and COVID-19 vaccines. The wildcard \* stands for any character or series of characters, thus retrieving ‘covid’, ‘covid-19’, etc. We examined the *collocates* of the search string, 3 words to either side, and with a Log Ratio<sup>4</sup> score >1.5. Collocates are words that regularly co-occur with a word of interest, or ‘node’, within a dataset,<sup>5</sup> which in our case meant regularly occurring within 3 words of ‘covid\*’. As ‘jab’ and its variants were among the collocates within our Log Ratio cut-off, we manually examined a 50 % sample of the tweets that contained both the ‘covid\*’ and ‘jab\*’ strings (n = 319) to see if there were undermining uses of ‘jab\*’ similar to those of ‘shot’ identified by Semino et al.<sup>3</sup> We subsequently collected available geolocation information for all tweets where ‘covid\*’ collocated with ‘jab\*’.

### 3. Results

Table 1 shows the ‘covid\*’ collocates ‘jab’, ‘jabs’ and ‘jabs.’ as well as ‘shot’ and ‘shots’ for contrast in the Twitter MMR corpus, along with collocation frequency (how often the co-occurrence happens), Log Ratio score (a measure of effect size representing the difference between the collocate’s frequency near the node and its frequency elsewhere) and the Mutual Information score (a measure of the strength of association between two words).

As the Table 1 shows, all variations of ‘jab’ have a stronger association with ‘covid\*’ than ‘shot’ or ‘shots’, although ‘shot’ and ‘shots’ co-occur almost twice as frequently with ‘covid\*’ than do ‘jab’ and its variants. The latter likely explains why ‘jab\*’ was not discussed in Semino et al.,<sup>3</sup> but the former speaks to the importance of considering ‘jab\*’, as we are doing here.

Table 2 reports the available geolocation information for all 612 tweets with ‘jab\*’ as a collocate of ‘covid\*’. As is to be expected, the geographic origin of tweets could not be determined in most cases, with fantasy/fictional locations or no information being provided in almost half the cases. However, and bearing in mind issues with the reliability of geolocation information provided on Twitter, the most frequent identifiable geolocation of the tweets in question was the UK (34 % of all relevant tweets, which equates to 55 % of tweet with any kind of geolocation information). This supports the idea that ‘jab’ and its variants (and therefore our analytic insights) are particularly, though not exclusively, relevant to the UK context.

The qualitative examination of a 50 % sample of ‘jab\*’ as a collocate of ‘covid\*’ (n = 319) identified similar undermining uses as ‘shot’ a significant minority of the time (18 %, n = 59). Many tweets used ‘jab\*’ to signal an intervention that was described as different from and inferior to a vaccine:

2. @\_\_\_\_\_ OH! Wait until everyone finds out they’ve been duped into allowing an experimental witches brew jab is not really a vaccine. No one is vaccinated. MMR is a vaccine. Covid19 jab is not.
3. @\_\_\_\_\_ What ’s next America? These COVID jabs aren’t even vaccines like MMR etc.

Interestingly, the link between the inferiority association of ‘jab\*’

**Table 1**  
‘Jab\*’ and ‘shot\*’ as collocates of ‘covid\*’ in the Twitter MMR corpus.

Collocate of ‘covid*’	Observed collocation frequency	In how many tweets	Log Ratio score	Mutual information score
jabs.	10	10	3.036	2.877
jab	429	409	2.442	2.342
jabs	199	193	2.398	2.301
shot	720	655	2.122	2.045
shots	406	387	1.944	1.879

**Table 2**

Geolocation of tweets with ‘jab\*’ as collocate of ‘covid\*’ in the Twitter MMR corpus.

Geolocation	Number of tweets	Percentage of tweets
No geolocation information	241	39.4
UK	206	33.7
US	77	12.6
Fantasy location	44	7.2
Australia	12	2.0
Canada	10	1.6
Other	10	1.6
Ireland	7	1.1
New Zealand	5	0.8

and ‘shot\*’ was made explicit in some tweets that used both terms (see also examples 9 and 10):

4. @\_\_\_\_\_ When Fauci compares apples (MMR vaccine 1 shot) to oranges (covid jab 1shot,2shot,3 shots & more shots to come is not a vaccine, it’s a shot

Many tweets articulated the basis for this negative evaluation of ‘jab\*’ vs ‘vaccine’ as the lack of protection from infection. This was the only basis given in the tweets.

5. @\_\_\_\_\_ @\_\_\_\_\_ After 2 doses (MMR) you develop immunity from measles for life. Covid jab (not a vaccine) does not give you immunity.
6. @\_\_\_\_\_ MMR is a vaccine that actually prevents and provides immunity against measles. Covid jab is mRNA device and treatment that only reduces severity or gravity of symptoms and risk of severe illness. Does not stop you getting Covid, transmission or fulfil vaccine definition

The reference to ‘vaccine definition’ in Example 6 is particularly interesting because some tweets also referenced the 2021 change to the CDC definition of a vaccine, as an attempt to manipulate the public (see also Example 10).

7. @\_\_\_\_\_ @\_\_\_\_\_ @\_\_\_\_\_ The covid jab is not a vaccine mmr is just bc u change the definition doesn’t make it so

Finally, a number of tweets also brought the flu vaccine into the unfavourable comparison:

8. I’ve seen a lot of equivalence being made of the covid jab to Polio, MMR and BCG vaccines. Classic apple and oranges comparison. The covid jab is most similar to the flu jab. Why isn’t that equivalence comparison being made, especially as it would actually be more appropriate.
9. @\_\_\_\_\_ Not at all mmr is an actually by the definition vaccine covid jab is a jab like the flu shot
10. @\_\_\_\_\_ @\_\_\_\_\_ The CDC changed the definition of “vaccine” when they discovered the covid shot does not prevent disease or provide immunity (which the MMR vaccine does). Covid jab is more like the flu SHOT. It is not a vaccine.

### 4. Discussion

While we only analysed 319 tweets overall, this raw number represents 50 % of the total tweets in our corpus that used ‘jab\*’ as a collocate of ‘covid\*’ and went beyond the point at which new usage patterns could be identified. While other techniques, like sentiment analysis, tend to cover far larger data sets, the key advantage of our approach is the qualitative nuance and precision in interpretation that it is able to provide. Our analysis, using Semino et al.’s<sup>3</sup> Twitter MMR corpus,

revealed that ‘jab’ and its variants are used to undermine the status of the COVID-19 vaccine as a vaccine in the pandemic period in same ways as ‘shot’ in the original paper. Similarly, to ‘shot’ the perception of the alleged inferiority of ‘jab’ stems from an incomplete understanding of what vaccines actually are (as in Example 1 from Semino et al.,<sup>3</sup> and Examples 5 and 6). This potentially indicates an opportunity (or need) for public health education to improve public awareness and understanding of the two separate, but related, purposes of vaccines – to prevent infection and to reduce disease severity – also in the UK context.

More immediately, however, the evidence presented here requires a re-evaluation of the use of ‘jab’ and its variants in public health campaigns designed to encourage uptake of vaccinations in the UK and beyond. While the informality of ‘jab’ vs ‘vaccine’ may minimise the fear factor of getting vaccinated, the writing guidance provided by the UK’s National Health Service (NHS) already cautions against the use of the term due to associations with physical violence, which can be off-putting for those uncomfortable with needles (<https://service-manual.nhs.uk/content/a-to-z-of-nhs-health-writing#jab>). If, as we have shown, there is a further association with inferiority then this likely completely negates any potential advantages of the term. Future research needs to examine whether the same advice might apply to other colloquial references to vaccination, such as, for example, ‘jag’, commonly used in Scotland.

Caution with – and perhaps avoidance of – ‘jab’ is particularly advisable in the case of the flu vaccine. We have shown that, just like with ‘shot’, references to the flu vaccine appeared in sceptical tweets unfavourably contrasting ‘jabs’ with ‘vaccines’. In this way a negative perception mainly motivated by experience with the COVID-19 vaccines brought new attention to a similar perceived shortcoming of the flu vaccines. Most seasonal flu public health campaigns in the UK, including those inviting the over 65s to both flu and COVID-19 vaccinations have tended to prefer ‘jab’ over vaccine. However, using ‘flu jab’ in such messaging, especially in combination with references to the COVID-19 vaccine, might negatively impact uptake.

## Ethical approval

The study was approved by the FASS-LUMS Research Ethics Committee at Lancaster University (reference FL20013 - A105268).

## Funding

This work was supported by the Economic and Social Research Council, part of UK Research and Innovation, grant number: ES/V000926/1.

## Competing interests

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Elena Semino reports financial support was provided by UK Research and Innovation Economic and Social Research Council. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## References

1. SAGE. Report of the sage working group on vaccine hesitancy. Available at: [https://www.who.int/immunization/sage/meetings/2014/october/1\\_Report\\_WORKING\\_GROUP\\_vaccine\\_hesitancy\\_final.pdf](https://www.who.int/immunization/sage/meetings/2014/october/1_Report_WORKING_GROUP_vaccine_hesitancy_final.pdf). Accessed September 10, 2024.
2. Larson HJ. Defining and measuring vaccine hesitancy. *Nat Hum Behav.* 2022;6(12): 1609–1610. <https://doi.org/10.1038/s41562-022-01484-7>.
3. Semino E, Coltman-Patel T, Dance W, Demjén Z, Gleave R, Mackey A. ‘It’s a shot, not a vaccine like MMR’: a new type of vaccine-specific scepticism on Twitter/X during the COVID-19 pandemic. *Vaccine X.* 2025;23, 100620. <https://doi.org/10.1016/j.jvacx.2025.100620>.
4. Hardie A. Log Ratio – an informal introduction. Available at: <https://cass.lancs.ac.uk/log-ratio-an-informal-introduction/>. Accessed March 28, 2025.
5. McEnery T, Hardie A. *Corpus Linguistics*. Cambridge University Press; 2012.