Time to stop the use of ‘Wuhan virus’, ‘China virus’ or ‘Chinese virus’ across the scientific community

Zhaohui Su,1 Dean McDonnell,2 Junaid Ahmad,3 Ali Cheshmehzangi,4 Xiaoshan Li,5 Kylie Meyer,6 Yuyang Cai,7,8 Ling Yang,9 Yu-Tao Xiang10

In many areas of the world, phrases such as ‘Wuhan virus’, ‘China virus’ and ‘Chinese virus’ have been frequently used by laypeople, influential politicians and mass media to refer to the virus SARS-CoV-2 that caused the COVID-19 pandemic.1 Naming a virus after a geographic location or group of people is not unheard-of, for example, the Middle East respiratory syndrome (MERS) and the Legionnaires’ disease.2 However, having precedence is not a de facto justification for using these alternatives, as mentioned above, to SARS-CoV-2. Replacing SARS-CoV-2 with ‘Wuhan virus’, ‘China virus’ or ‘Chinese virus’ hinders the public’s understanding and perception of the novel coronavirus.

Inhibiting COVID-19 research development, similar to the accounts of MERS and Legionnaires’ disease, these terms are biased since not only Wuhan or Chinese people would contract the disease (until an iota of evidence emerges that somewhat hints the otherwise). These representations of the SARS-CoV-2 virus are misleading and violate the official recommendations made by the WHO.3 As such, they are discriminatory and equate a city, a nation and the Chinese people to a virus. Moreover, misleading terms exacerbate the discrimination and mental health issues of people living in Wuhan and throughout China,3 in addition to Chinese and Asian people living in other countries. Taken altogether, the use of these terms to refer to SARS-CoV-2 should be stopped.

Evidence indicates that the use of ‘Wuhan virus’, ‘China virus’ or ‘Chinese virus’ as an alternative to SARS-CoV-2 is not only prevalent on traditional or social media platforms,4 but it is also present in the research arena.4,5 Different from media practitioners or the general public, research communities are united by a set of scientific research principles. From honesty to objectivity or integrity to responsibility, as indicated in a widely adopted research ethics framework published by the National Institute of Health,6 these principles elevate the research community as a trusted source of information amid the COVID-19 pandemic.7 However, the use of these terms, referring to the SARS-CoV-2 virus, indicates that its use violates the principles mentioned earlier. Alternatives to the SARS-CoV-2 virus contradict the principle of honesty, which states that scientific research must be truthful and accurate.6

To date, there is no definitive evidence to support that the origin of SARS-CoV-2 is in Wuhan or China.8 Existing evidence only substantiates the argument that Wuhan is the place that recorded the first major COVID-19 outbreak,9 and this is something in need of noting. Being the location that witnessed the first major COVID-19 outbreak does not lead to the conclusion that Wuhan is the first place...
that experienced a human COVID-19 infection, nor it is the origin of the SARS-CoV-2 virus. Recent evidence shows that, as early as December 2019, there were traces of SARS-CoV-2 found in some areas of Europe.\(^5\) Second, using these terms to substitute SARS-CoV2 violates the principle of objectivity, which states that researchers should minimise errors and biases in their scientific work. Considering that the COVID-19 pandemic is still evolving and no evidence can authenticate the claim that SARS-CoV-2 originated in Wuhan or China, the adoption of these terms, in turn, breaches the principle of objectivity unless new empirical evidence emerges that suggests otherwise.\(^2\)

The principle of integrity states that researchers should strive for consistency of thought in addition to consistency of action.\(^6\) The use of phrases, such as the ‘Chinese virus’, referring to SARS-CoV-2 may equate to the use of ‘Italian death’ for the Black Death, ‘American Pandemic’ for the AIDS pandemic or the ‘African virus’ for the Ebola virus. There does not seem to be the same level of insistence to identify other viruses or diseases within specific racial, ethnic, national or geographic groups. These substitutions violate the principle of integrity, and the inconsistency warrants further investigations. The principle of carefulness requires researchers to be cautious and unwavering in their decisions about research practice. Unsubstantiated claims regarding the origins of a deadly and highly transmissible virus that adopt phrases, such as ‘Wuhan virus’, violate this principle of carefulness\(^6\) and fail to account for the human consequences of using these terms.

Being the capital city of Hubei Province, Wuhan has received a considerable media focus and could be considered the epicentre of attention with regards to SARS-CoV-2. Unfortunately, this attention is also giving rise to discrimination and racism to the point where scholars called for the need to stop the coronavirus stigma.\(^10\) Although it is unclear why the ‘Hubei Province virus’ was not a candidate in place of ‘Wuhan virus’, if a possible factor is the lack of adequate knowledge on Chinese geography or ease of pronunciation, this decision should be outlined and made transparent according to the principle of openness.\(^6\)

Overall, it is difficult to gauge the degree of long-term adverse effects of the misinformation or disinformation surrounding phrases, such as ‘Wuhan virus’, on the health and well-being of people living in Wuhan or China at large.\(^11\)

It is, however, evident that the use of these phrases exerts a grave impact on the health and well-being of people living in Wuhan and indeed communities across China.\(^12\)\(^13\) There are also papers that make reference to fake news and xenophobia,\(^14\) social media trends, such as #ChineseDon’tComeToJapan or #yellowalert,\(^14\) and implications of discrimination on mental health and well-being.\(^3\) These reasons alone should prompt the international research community to avoid using these terms, as the use also infringes the principle of responsibility.\(^5\)

As COVID-19 is still evolving, the importance of the narrative to focus on collaboration and action to most effectively curb the spread of COVID-19 should be the priority. Rather than fuelling a psychological virus that spreads discrimination and stigma, eliminating the use of phrases like ‘Wuhan virus’, ‘China virus’ or ‘Chinese virus’ can provide a more consistent and cultivating level of trust between the public and the scientific research community in these times of uncertainty. Akin to the message of other researchers,\(^15\) one tangible change that remains in our control is the way we conduct ourselves and our research. As such, we must further recognise the importance of how we report and the broader need to initiate a change: using scientifically objective terms to refer to SARS-CoV-2 is an important starting point. This, in turn, will help keep the public’s attention focusing on the most important issue of the day: how to stop the virus from spreading.

**Author affiliations**

1. Center on Smart and Connected Health Technologies, Mays Cancer Center, School of Nursing, UT Health San Antonio, San Antonio, Texas, USA
2. Department of Humanities, Institute of Technology Carlow, Carlow, Ireland
3. Prime Institute of Public Health, Peshawar Medical College, Peshawar, Pakistan
4. Faculty of Science and Engineering, University of Nottingham - Ningbo China, Ningbo, Zhejiang, China
5. Program of Public Relations and Advertising, Beijing Normal University-Hong Kong Baptist University, United International College, Zhuhai, Guangdong, China
6. School of Nursing, UT Health San Antonio, San Antonio, Texas, USA
7. School of Public Health, Shanghai Jiao Tong University School of Medicine, Shanghai, China
8. China Institute for Urban Governance, Shanghai Jiao Tong University, Shanghai, China
9. Department of Geriatrics, Xinhua Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, China
10. Unit of Psychiatry, Institute of Translational Medicine, Faculty of Health Sciences; & Center for Cognition and Brain Sciences, University of Macau, Taipa, Macau, China

**Twitter** Junaid Ahmad @junaid527

**Acknowledgements** The authors wish to express their gratitude to the editor and reviewers for their invaluable insights. In addition, the authors also wish to say thanks to Dr. Roger Yat-Nork Chung for his constructive input.

**Contributors** ZS developed the research idea and drafted the manuscript. DM, JA, AC, XL, KM, YC, LY and Y-TX reviewed and revised the manuscript.

**Funding** This work was supported by the National Natural Science Foundation of China (71432006); the National Social Science Fund of China (17BSH056); and the Shanghai Jiao Tong University think tank research project (ZKJ-J-20200114).

**Competing interests** None declared.

**Patient consent for publication** Not required.

**Provenance and peer review** Not commissioned; internally peer reviewed.

**Data availability statement** All data relevant to the study are included in the article.

**Open access** This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) licence, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

**ORCID iDs**

Zhaohui Su http://orcid.org/0000-0003-2005-9504
Ali Cheshmehzangi http://orcid.org/0000-0003-2657-4865

**REFERENCES**

1. Rovetta A, Bhagavathula AS. COVID-19-related web search behaviors and infodemic attitudes in Italy: Infodemiological study. JMIR Public Health Surveill 2020;6:e19374.
2 World Health Organization. World Health organization best practices for the naming of new human infectious diseases. World Health Organization, 2015.
3 Xiang Y-T, Yang Y, Li W, et al. Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. Lancet Psychiatry 2020;7:228–9.
4 Robyn Ret al. 2019-nCoV (Wuhan virus), a novel coronavirus: Zhuman-to-human transmission, travel-related cases, and vaccine readiness. J Infect Dev Ctries 2020;14.
5 Nishiura H, Jung S-mok, Linton NM, et al. The extent of transmission of novel coronavirus in Wuhan, China. 2020. J Clin Med 2020;9:330.
6 Resnik DB. What is ethics in research & why is it important, 2011. Available: www.niehs.nih.gov/research/resources/bioethics/whatis [Accessed 23 Jul 2020].
7 Sibley CG, Greaves LM, Satherley N, et al. Effects of the COVID-19 pandemic and nationwide lockdown on trust, attitudes toward government, and well-being. Am Psychol 2020;75:618–30.
8 Coronaviridae Study Group of the International Committee on Taxonomy of Viruses. The species severe acute respiratory syndrome-related coronavirus: classifying 2019-nCoV and naming it SARS-CoV-2. Nat Microbiol 2020;5:536–44.
9 Kelland K. Italy sewage study suggests COVID-19 was there in December 2019, 2020. Available: https://www.reuters.com/article/us-health-coronavirus-italy-sewage-idUSKBN23Q1J9 [Accessed 22 Jul 2020].
10 Chung RY-N, Li MM. Anti-Chinese sentiment during the 2019-nCoV outbreak. Lancet 2020;395:686–7.
11 Ren S-Y, Gao R-D, Chen Y-L. Fear can be more harmful than the severe acute respiratory syndrome coronavirus 2 in controlling the corona virus disease 2019 epidemic. World J Clin Cases 2020;8:652–7.
12 Wen J, Aston J, Liu X, et al. Effects of misleading media coverage on public health crisis: a case of the 2019 novel coronavirus outbreak in China. Anatolia 2020;31:331–6.
13 Zheng Y, Goh E, Wen J. The effects of misleading media reports about COVID-19 on Chinese tourists’ mental health: a perspective article. Anatolia 2020;31:337–40.
14 Rich M. As coronavirus spreads, so does anti-Chinese sentiment. The New York Times, 2020.
15 Stop the coronavirus stigma now. Nature 2020;580:165.