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## Letter to the Editor

### Exploring the link between risk perception in internet media and the prevalence of COVID-19 in Europe



Correlation has been found between search activity in Google Trends and the incidence and prevalence of coronavirus disease 2019 (COVID-19) during the first wave of the pandemic in Europe. Apart from the early stages of the pandemic in the countries affected first (Effenberger et al., 2020), significant contemporaneous correlations were observed across Europe (Szmuda et al., 2020). Szmuda et al. (2020) presented two important conclusions: online searches for COVID-19 in Europe are not correlated with epidemiology; and searches are strongly correlated with international announcements by the World Health Organization (WHO), which emphasizes the role of WHO in increasing awareness of new diseases.

Although we strongly agree with their first conclusion (Jarynowski et al., 2020a), we would like to shed further light on the second. It seems that interest in COVID-19 with single searches such as ‘coronavirus’ or ‘ILI’ (a set of symptomatic or COVID-related queries) on Google or Bing using GFT (Google Flu Trends) algorithms followed the same pattern in most of the world (Budd et al., 2020; Lampos et al., 2020), and the positive correlation found between searching behaviour and the incidence of COVID-19 (Effenberger et al., 2020) was due to time coincidence. It is worth noting that the situation in China was significantly different (Gong et al., 2020; Li et al., 2020; Lu, 2020), and media attention (measured by topic/keyword intensity on Weibo/Baidu) more or less followed officially notified viral pressure and probable physical risk of acquiring/having infection.

Perceptions of the COVID-19 pandemic in Poland, and probably in most other European countries, are primarily of a social, rather than medical, dimension (Jarynowski, 2020). We would like to refer to the ‘lay-referral system’ of framing (Freidson, 1988), where opinions and beliefs of the general public differ from medical knowledge, with traditional media representing the first layer and social media representing the second layer.

As such, we disagree with the conclusion of Szmuda et al. (2020) regarding the direct role of WHO in internet searches by the general population. We have shown the importance of WHO in traditional media, and highlighted that this institution is a major player in information provided in traditional media (Jarynowski, 2020; Jarynowski et al., 2020b). WHO-related phrases were mentioned in 21% of traditional media articles related to coronavirus (in a sample of 50k representative articles with the highest reach in Poland). However, in social media (including Google Trends), the concept of WHO barely exists. Only 0.03% of tweets using the keyword ‘coronavirus’ (from a sample of 1 M tweets with #Koronawirus in Polish) contained WHO-related

phrases. WHO was only mentioned twice during the pandemic in the top 25 trending Google queries: on 31 January 2020 (when WHO declared COVID-19 a ‘public health emergency of international concern’) and on 9 July 2020 (when WHO confirmed the airborne transmission route of severe acute respiratory syndrome coronavirus-2). Pan-European interest peaked between 12 and 16 March 2020 (Lampos et al., 2020), and the most popular topic at this time was ‘closing schools’, followed by ‘closing borders’. There was far less interest in the declaration of a pandemic by WHO. People are more interested in issues that affect their lives directly, so COVID-19 was perceived as a social issue rather than a medical issue in Europe, at least until the rapid increase in incidence in Autumn 2020.

#### Conflict of interest

None declared.

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#### Ethical approval

Not required.

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