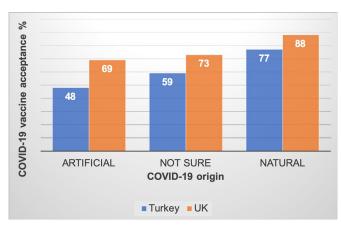


## Hesitancy about a COVID-19 vaccine is linked to beliefs about origin of the virus

19 October 2020, by Dr. Gul Deniz Salali



Percentage of participants who responded "yes" to the question of whether they would vaccinate themselves and their children for COVID-19 in Turkey (n= 3936) and the UK (n= 1088) based on their belief on the origin of the coronavirus (artificial / not sure / natural). (from the study). Credit: Cambridge University Press

More than a third of people (34%) in Turkey and one sixth of people (17%) in the UK are 'hesitant' about a COVID-19 vaccine, according to a study by UCL and Dokuz Eylul University in Turkey.

The research, published in the journal *Psychological Medicine*, asked over 5,000 participants in Turkey and the UK about their willingness to vaccinate for a potential COVID-19 vaccine and beliefs on the origin of the novel coronavirus. The findings show concerning levels of COVID-19 vaccine hesitancy.

Lead author, Dr. Gul Deniz Salali, an evolutionary anthropologist at UCL, said: "From an evolutionary point of view, <u>natural selection</u> should favor a bias towards making the least costly decision when there is uncertainty. This is why when people face a choice between taking a specific action or doing nothing, they sometimes prefer to do nothing. This <u>cognitive bias</u>, called the omission bias, may kick

in when people make vaccination decisions."

The researchers examined the factors that are associated with acceptance of a COVID-19 vaccine. One of the key factors that explained the probability of vaccine acceptance was a person's belief on the origin of the novel coronavirus.

Odds of vaccine acceptance were 26% higher in Turkey and 63% higher in the UK if a person believed in the natural origin, compared to those who were not sure about the virus origin. In Turkey, participants who believed in the artificial origin of the virus (i.e. SARS-Cov-2 was human-made) were 54% more likely to be vaccine-hesitant.

The research is led by Dr. Salali and conducted in collaboration with a <u>social psychology</u> doctoral researcher, Mete Sefa Uysal at Dokuz Eylul University in Turkey.

The study reported several other behavioral and demographic factors that influenced vaccination and origin beliefs. Participants who had higher levels of pandemic related anxieties, such as being more worried about catching or passing on the virus, were more likely to accept COVID-19 vaccination. Compared to women, men in Turkey were more likely to accept a COVID-19 vaccine and believe in the natural origin of the virus.

Dr. Salali said "From an evolutionary perspective, emotions can be seen as detectors helping us to avoid death or promote reproduction, especially under uncertainty. The positive correlation between COVID-19 related anxiety and vaccine acceptance can be rooted in the adaptive function of anxiety in decreasing mortality risk."

"Because women are more likely to take healthcare decisions for their children, they may also be more likely to seek out information about vaccines and be exposed to online anti-vaccination content. Moreover, women score higher on disgust



sensitivity which is associated with vaccine hesitancy."

Much research effort is focused on developing an effective vaccine for combatting COVID-19. Vaccine development itself, however, will not be enough given that a sufficient amount of people will need to be vaccinated for widespread immunity. The study findings point at a concerning level of COVID-19 vaccine hesitancy, especially in Turkey, and suggest that wider communication of the scientific consensus on the <u>origin</u> of the novel <u>coronavirus</u> with the public may help future campaigns targeting COVID-19 <u>vaccine</u> hesitancy.

**More information:** Gul Deniz Salali et al, COVID-19 vaccine hesitancy is associated with beliefs on the origin of the novel coronavirus in the UK and Turkey, *Psychological Medicine* (2020). DOI: 10.1017/S0033291720004067

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