

## Covid-19 â??vaccinationsâ?? are associated with higher psychiatric morbidity

## **Description**

A large Korean cohort study has just been published that included half of the population of Seoul. The data is based on the Korean health database [1]. The study participants, more than 2 million people in total, were randomly selected from all residents of Seoul and followed prospectively, i.e. into the future, to see if they received Covid-19 â??vaccinationsâ?? and, if so, which ones, and if they developed psychiatric illnesses.

308,354 of them were not â??vaccinatedâ??, and thus provided a good database for comparison. The study showed that depression, anxiety disorders, including stress disorders and somatoform disorders, as well as sleep disorders and sexual disorders were more common in those who had been vaccinated, while schizophrenia and bipolar disorders were more common in those who had not been vaccinated. Adverse effects were generally more common in people who had been â??vaccinatedâ?? with different preparations mixed together. This can be seen in the figure below, which shows the incidence rates for anxiety disorders. The green bands indicate the incidence rates for â??unvaccinatedâ?? people, the blue bands for â??vaccinatedâ?? people with mRNA â??vaccinesâ??; the red bands for vector DNA â??vaccinesâ?? (e.g. AstraZeneca). The dark blue line is that for people with different â??vaccinesâ??. The effects were recorded for up to three months after the â??vaccinationsâ?? and only if at least two â??vaccinationsâ?? had been administered.

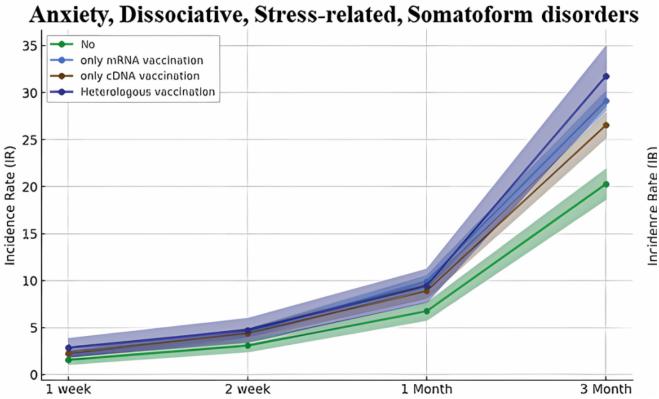


Figure: Incidence rate of anxiety, dissociative disorder, stress disorders and somatoform disorders in Covid-19 â??vaccinatedâ?? (at least two â??vaccinationsâ??; different â??vaccinationsâ?? in different shades of blue and red) and â??unvaccinatedâ?? (green line and bands) over three months after the intervention; from [1]

The incidence rates are the ratios of incidents (in this case anxiety, stress, dissociative symptoms) in 10,000 people, calculated cumulatively, i.e. added up. Here, this would be 4,884 anxiety diagnoses out of all 1.7 million vaccinated people, which corresponds to an incidence rate of 28.41 per 10,000 people. This is how the figure above and the others of this kind, which are shown in the publication, are to be read. If you compare these incidence rates over time with the incidence rates in the control group, you get the hazard ratios or the risk ratio between the two groups using a Cox proportional hazards model. If it is greater than 1, then the intervention group, in this case the â??vaccinatedâ?? group, has a higher risk; if it is less than 1, then the control group, in this case the non-â??vaccinatedâ?? group, has a higher risk. I show the hazard ratios (HR) in the table below (rounded to two decimal places), together with the 95% confidence interval. This is the range within which the true value can be found with 95% probability.

Diagnosis	Hazard Ratio	95% Confidence Interval
Schizophrenia	0.23	0.16 â?? 0. 33
Bipolar disorder	0.67	0.47 â?? 0.96
Eating disorder	0.80	0.39 â?? 1.60
Depression	1.68	1.52 â?? 1.86
Anxiety, dissociative, somatoform and stress disorders	1.44	1.32 â?? 1.57
Sleep disorders	1.93	1.74 â?? 2.15
Sexual disorders	6.56	0.89 â?? 48.30

The confidence interval depends on the standard error, i.e. the estimation error, and thus on the frequency of occurrences compared to the total number. Therefore, this standard error becomes very large if the total frequency of events is small and the estimate is imprecise. If the confidence interval includes 1, then the comparison misses the conventional significance threshold of 5%. This is roughly the case for the category of eating disorders and for sexual disorders. In the case of eating disorders, the incidence in untreated patients is 0.32 per 10,000 and in treated patients 0.30 per 10,000; the difference is very small, which is why the HR is only 0.80; the total number of occurrences is very small, which is why the sampling error is large, and the confidence interval is just as large. A similar situation applies to sexual disorders. There, the incidence rate is 0.03 per 10,000 in the untreated group, namely only one observation over the entire period, and 0.27 per 10,000 or 47 observations over the entire period in the vaccinated group. Therefore, although the HR of 6.57 is very high and indicates a negative effect of the â??vaccinationâ??, it is not significant.

For the other hazard ratios, the case is clear: depression occurs 68% more frequently in an aniety disorders 44% more frequently, and sleep disorders 93% more frequently. And in all these categories, the HR estimators are far from 1 and thus clearly significant.

The opposite is the case for schizophrenia and bipolar disorders: schizophrenia occurs 77% less often in â??vaccinatedâ?? individuals (i.e. 1 â?? 0.23) and bipolar disorder 33% less often. These differences are also significant because these estimators are also significantly different from one.

The authors try to understand this mixed picture primarily through the known mechanisms and genetic profiles. Depression, but also anxiety, is now often regarded as a hidden inflammatory disease of the nervous system. In this respect, it fits the picture that modified RNA injection, which itself contributes to inflammation and shifts the immune profile towards pro-inflammatory reactions, increasingly triggers such diseases that are associated with inflammation. And depression, anxiety and stress disorders, and possibly sleep disorders, are among them.

But why do we see less schizophrenia? The authors think that this is because schizophrenia is caused by a number of genes that simultaneously accelerate bile metabolism. Bile acids apparently prevent the binding of spike proteins and the angiotensin-converting enzyme (ACE)-2 receptor, which is the key receptor for the binding of SARS-CoV-2. I find this somewhat unconvincing. Because then we should have seen fewer SARS-CoV-2 infections in schizophrenics all over the world. I donâ??t know of any observations to that effect, but maybe Iâ??ve missed something.

I find it much more likely that people with pre-existing schizophrenic symptoms, which usually include pronounced paranoia, tend to get vaccinated less often, which is why there are more schizophrenics among the â??unvaccinatedâ??. Something similar, but with the opposite effect, may have happened with manic people. These people tend to overestimate their own strength, tend to be more likely to be convinced that they are immune to disease and therefore do not need vaccination.

This leads us to the weakness of this study: the pre-existing illnesses and diagnoses, the socio-demographic differences and co-morbidities were apparently not sufficiently taken into account in these regression models. At least no information is provided (and they did not respond to a request from me). The authors also mention that, of course, such data from large health registers are prone to miscoding. This is especially important when, as is the case here, some diagnostic categories have few mentions.

But apparently we see a significantly higher risk for â??vaccinated peopleâ?? for the categories in which more occurrences were documented, i.e. for depression, anxiety disorders, including stress and somatoform disorders, as well as for sleep disorders. This is another strong argument for the frequently repeated message:

The statement by our health ministers Spahn and Lauterbach and their authorities, the Paul Ehrlich Institute, and their political and media amplifiers that the  $\hat{a}$ ??vaccination $\hat{a}$ ? was safe, yes, that they even had to prescribe compulsory vaccination, was wrong. It was probably even a lie. Because if the adverse reaction databases had not been taken off the net in spring 2021, but had been carefully maintained, this pattern could probably have been seen earlier. The Korean researchers set 31 October 2021 as the cut-off date for their data collection. But the data only came to light now, three years later. I asked the researchers why, but, as they said, they did not answer.

## Sources

1. Kim HJ, Kim M-H, Choi MG, Chun EM. Psychiatric adverse events following COVID-19 vaccination: a population-based cohort study in Seoul, South Korea. Molecular Psychiatry. 2024;29(11):3635-43. doi: https://doi.org/10.1038/s41380-024-02627-0.

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