International Journal of Vaccine Theory, Practice, and Research
IJVTPR

A Finnish Survey of Adverse Effects of COVID-19 Injectables and the Functionality of the Medical System

Tamara Tuuminen, MD, PhD, Adj Prof[1], Pasi J. Suominen[2], and Tore A. Gulbrandsen, MSc[3]

[1]Kruunuhaka Medical Center, Kaisaniemenkatu 1Ba, 00110 Helsinki
*Corresponding author: tamara.tuuminen@protonmail.com
[2]Researcher not affiliated with the Finnish Health Care System
[3]Independent researcher

Abstract

The declaration of the COVID-19 pandemic brought unprecedented containment measures across multiple countries, with the announced intent of saving lives. Among them was the rapid development of prophylactic vaccines, with the promise of no corners cut, but warning signals from safety monitoring systems around the world raised concerns. The current survey was undertaken to evaluate the Finnish medical system in light of adverse effects from COVID-19 vaccination. An online survey consisting of 96 questions (see the Appendix) was promoted through social media. Persons believing they had been injured by any COVID-19 injectable contacted the second author who first verified the identity of the respondent and then gave that person the key to complete the questionnaire. The open period lasted from 5 March 2023 to 25 July 2023.: Out of 67 respondents 63 completed the survey and the collected data was analyzed. Of 63 respondents, 55 (87%) were females and 8 (13%) males. The majority, 56 (89%) of them, were fully employed, and 29 (46%) were social sector or medical professionals. None were previously "vaccine hesitant". All received from 1 to 4 doses of COVID-19 injectable(s), and 19 (30%) reported doing so under duress. Despite having complied with mandatory vaccination, 13 of the individuals (21%) lost their jobs, and 13 (21%) changed their profession because of the shots. Of the vaccine recipients, 40 (63%) reported that they were only partially able to continue their daily routines, and 17 (27%) reported not being able to maintain daily routines at all. Upon noticing adverse effects, 58 (92%) of the respondents opted to refuse any further doses, but 29 (46%) of them were compelled to take further shots despite their symptoms of prior vaccine injury. A broad range of system disorders was reported, including, notably, neurological and cardiovascular problems. Respondents were asked to describe their experience with the medical system and the healthcare workers they called on for help. Results show that COVID-19 injectables elicited a broad range of severe symptoms, raising grave concerns about the dangers of the products and casting doubt on whether promised benefits outweigh the risks that are increasingly well-known. Dozens of vaccinees in this data set were gravely impacted and these cases can only represent a small fraction of the larger number of injuries that have already occurred and continue to occur in Finland alone. Further use of these and future products based on this gene therapy technology should be suspended or discontinued altogether and medical doctors must educate and prepare themselves to face the consequences of this worldwide public health disaster. Open and sincere debates on the implications for medical ethics and the risk-benefit ratio of this novel technology are warranted.

Keywords: *adverse effects, COVID-19, informed consent, long COVID, public health, questionnaire, vaccination*

Introduction

Astonishingly, in less than a year after the declaration of the COVID-19 pandemic by the World Health Organization (WHO), trials of a radically new medical technology were, according to published statements by regulatory agencies, sufficiently complete to afford the products Emergency Use Authorization (EUA) in the USA and conditional marketing authorization in the EU. Politicians, medical health authorities and the media subsequently inundated the public with the message that "safe and effective" vaccines were becoming available. These products were misleadingly represented as having been put through the same rigorous testing as any formerly approved pharmaceutical products, thus blurring the line between EUA and the usual, far more rigorous, route to approval. Such messaging and political play begged the question of why there ever was any approval process more demanding than the exceedingly low threshold for EUA. The public was further conditioned to accept the COVID-19 vaccines as a way to escape from isolation and lockdowns. The supposed restoration of inalienable rights that seemed in danger of becoming permanently lost, served as a goad on the one side and a carrot on the other to promote acceptance of an experimental medical intervention that had not yet been vetted in the usual way by the responsible regulators. The whole process constituted a highly questionable application of medical and public service ethics.

Many employees of the healthcare systems world-wide, and especially in Finland, were coerced into taking the injectables. The basis of consisted of *ex-temporaneous* laws fabricated almost overnight to force all healthcare employees to accept the untested injectables. Later, the promised cure was represented as effective only if recipients were forced to take a second, third, and even a fourth dose. Later still, even more doses would be required to maintain the claimed efficacy. By the time that approximately 70% of the Western population had been subjected to this "vaccination" campaign, dose by dose the outcry of injured persons would echo around the world, falling apparently on the deaf ears of the medical establishment (Kyrie & Broudy, 2022).

Since 2021 the world's population has been left with harsh consequences of this COVID-19 vaccination mandates:

1. Excess mortality has been occurring in, for example, the United Kingdom (Oller & Santiago, 2022) and around the world (Santiago & Oller, 2023; Nakahara et al., 2023), with more severe consequences being reported in the more intensively vaccinated regions.
2. There had been a notable decrease in birthrate (Santiago, 2022).
3. There has been an upsurge of chronic diseases especially autoimmune conditions (Chen et al., 2022).
4. Adult and infant (SADS/SIDS sudden adult/infant death syndrome), deaths almost entirely unknown before 2021 to western clinical practitioners began occurring world-wide with the few autopsies performed showing cases of "multiple organ severe inflammatory syndrome" (MISC), "vaccine induced acquired immune deficiency" (VAIDS), a host of cardiovascular abnormalities, and other disorders and disease conditions (Yamamoto, 2022; Parry et al., 2023).

Given that such clinical calamities are not uncaused, is it not reasonable to suppose they were and continue to be related to the public health measures initiated by the WHO (Cohen & Carter, 2010)?

The Aim of Our Survey

To begin with a questionnaire was designed to assess:

1. the spectrum of disorders and injuries experienced by vaccinees.
2. the functionality of the medical and public health system during and after the COVID-19 pandemic, when lockdowns, job losses, business closures, and other crises became some brand of "new normal".

Materials and Methods

The research plan with a questionnaire was designed to address the aims stated above (see the Appendix for our translation of the questionnaire into English). Access was granted by the second author upon verification that a respondent was a real person, not an automated troll or robot. All respondents were participants of the COVID-19 vaccine injured chat group. The availability of the survey was promoted through the private messaging channel. Repeated access to the questionnaire was denied by the second author. The period during which data were collected began on 5 March 2023 and ended on 25 July 2023. Only complete responses were accepted for the survey. The answers were collated and analyzed using MS Excel and Python software.

Results and Discussion

From a total of 85 participants in the chat group — all of them patients receiving medical treatment for their symptoms — 67 responded to the invitation and 63 of them (a response rate of 77.8%) completed the 96 questions of the survey.

SOCIODEMOGRAPHIC DATA

As shown in Table 1, of 63 completed surveys, 55 were from females and 8 from males. The majority (73%) of the respondents were not yet 50 years old; 96.8% were under 71 years of age. Health care work accounted for 46% of the respondents' employment and 88.9% had more than 20 years of working experience. Retirement had occurred for 4 respondents on account of their age, but 4 reported being forced to retire because of vaccine injuries they experienced. That left 93.7% of the respondents still employed at the time they filled out the survey with 88.9% of them in full-time jobs. It came out that 13 (21%) were considering a change of profession due to dissatisfaction with leadership at their workplace and because of their experience during the response to COVID-19. Another 13 respondents lost their jobs in spite of the fact that they had taken the required doses of the COVID-19 injectables. A little more than half the respondents, 33 of them, were guardians of children under 18 and 3 individuals reported having to care for sick relatives.

Table 1
Demographic Characteristics of Survey Respondents

Characteristic		Male *n* = 8	Female *n* = 55	Total *n* = 63	% of Group Total	Cumulative % of All Respondents
Age	**18-30**	2	6	8	12.7%	12.7%
	31-40	0	18	18	28.6%	41.3%
	41-50	2	18	20	31.7%	73.0%
	51-60	4	9	13	20.6%	93.7%
	61-70	0	2	2	3.2%	96.8%
	71 and up	0	2	2	3.2%	100.0%
Years Employed	**1-2**	0	2	2	3.2%	3.2%
	3-5	2	5	7	11.1%	14.3%
	6-10	0	6	6	9.5%	23.8%
	11-20	1	20	21	33.3%	57.1%
	21-30	4	16	20	31.7%	88.9%
	31 and up	1	6	7	11.1%	100.0%
Healthcare Worker	**Yes**	0	29	29	46.0%	46.0%
	No	8	26	34	54.0%	100.0%
Retired	**Yes**	0	4	4	6.3%	6.3%
	No	8	51	59	93.7%	100.0%
Employed Part-Time?	**Yes**	0	7	7	11.1%	11.1%
	No	8	48	56	88.9%	100.0%
Guardian of Children Under Age 18	**Yes**	4	29	33	52.4%	52.4%
	No	4	26	30	47.6%	100.0%

Health Status Before and After "Vaccination"

Of the 63 respondents, 46% reported being generally healthy, not using any regular prescription or other medicines, before taking any of the injectables; 49 (78%) were non-smokers; and only 7 (11%) reported a body mass index (BMI) above 35. A few respondents, 10 of the 63 (16%) reported previous exposure to indoor air dampness and microbiota that might have adversely affected their immune functions. Likely exposure to indoor air toxins was emphasized by most respondents who remarked about factors that could have decreased their health resilience prior to receiving any of the COVID-19 injectables. It is noteworthy that concern for the toxicity and impurity of indoor air, especially at workplaces in Finland, was a major public concern well before the pandemic (Hyvonen et al., 2020). One of the respondents reported a prior lectin pathway deficiency; one reported an immune reaction after taking fluoroquinolones; and one had been diagnosed with asthma.

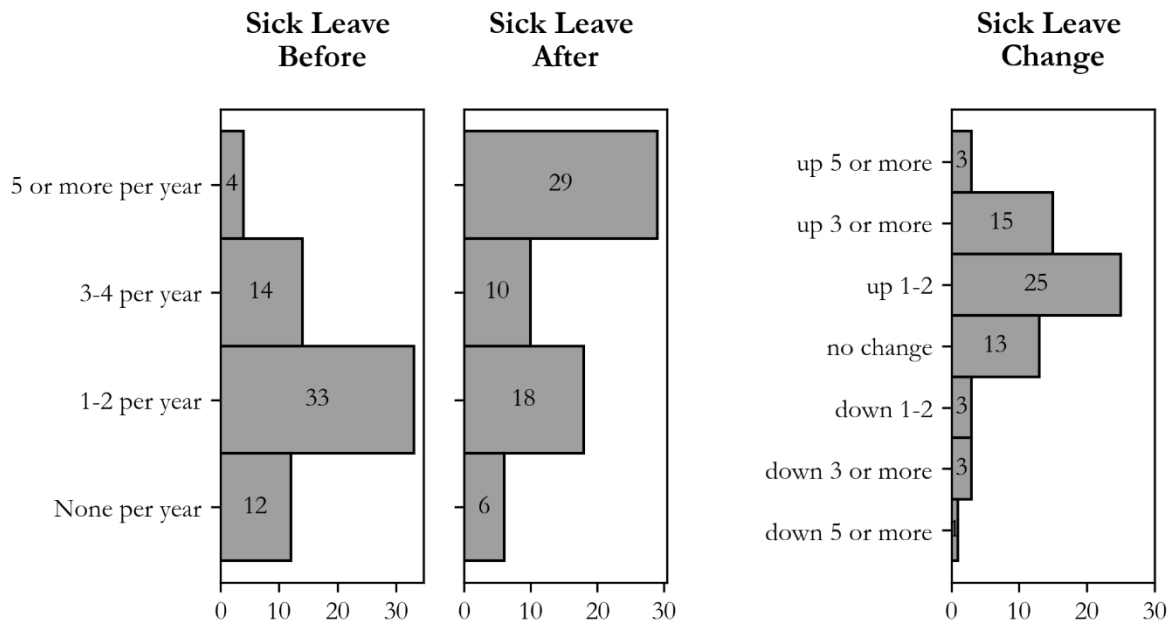

Figure 1. Sick-leave days per year before and after vaccination (left) and change in sick-leave days per year (right). The horizontal axis shows the number of respondents per category.

As seen in Figure 1, the majority respondents reported two or fewer days of sick-leave per year prior to receiving any COVID-19 injections, whereas after one or more injections, the majority reported taking 3 or more sick-leave days. While 13 (21%) reported no change after receiving one or more doses of COVID-19 vaccine, 25 (40%) reported an increase of 1-2 days, and 18 (29%) respondents reported an increase of 3 or more days of sick leave per year.

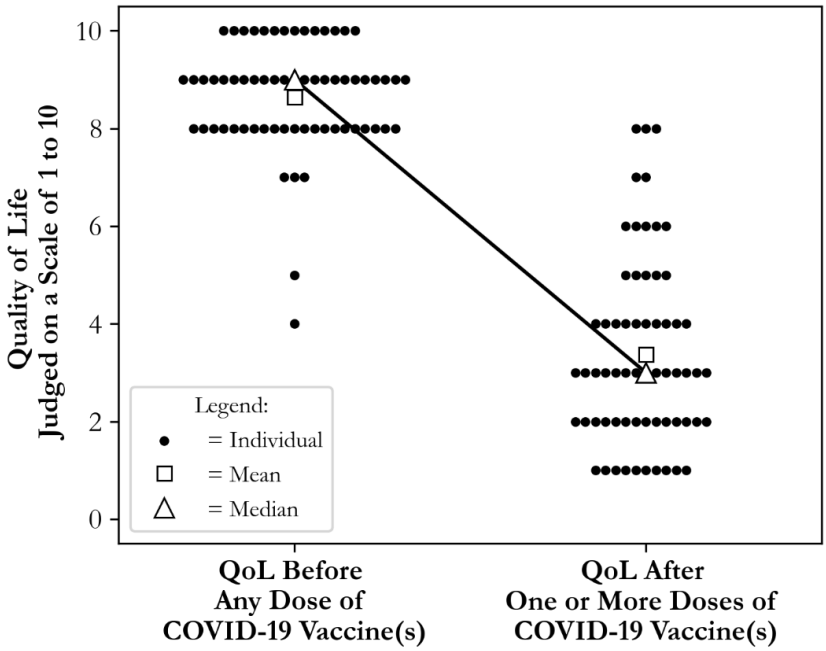

Figure 2. Quality of life (QoL) before and after receiving one or more doses of COVID vaccine. The median change was a reduction of 6 points as seen in the falling line from before to after.

While most respondents reported only an incremental increase in the number of sick-leave days per year, nevertheless, the majority judged their quality of life (QoL) to have decreased markedly as shown in Figure 2. On a scale of 0 to 10 — with 10

representing the highest and most optimal QoL — all but 5 participants reported a score of 8 or more before vaccination while only 3 respondents reported a score of 8 after vaccination. Only a few reported QoL greater than 4 after receiving one or more COVID-19 vaccinations. The median change in QoL was a loss of 6 points on the scale, from a median of 9 before vaccination to a median of 3 after vaccination.

Previous Attitudes Towards Vaccination

Most respondents reported having been "fully vaccinated" for childhood diseases. Only 9 (14%) of the respondents did not take any vaccines at all; 16 (25%) received yearly vaccinations against seasonal flu; and 27 (43%) intermittently accepted seasonal flu vaccines; 5 (8%) accepted one or more HPV (human papilloma virus) shots, and 28 (44%) reported receiving one or more vaccines against other infectious diseases, e.g., three were vaccinated against yellow fever due to their work in endemic area, one got the full series of anti-rabies vaccine, one was vaccinated against pneumococcal disease and a sixteen also against hepatitis A and B. Cumulatively, it seems that the respondents who participated in the survey about COVID-19 vaccine injuries were neither "anti-vax" nor were they "vaccine hesitant" prior to the world-wide response to the COVID pandemic.

Adverse Reactions to Previous Vaccinations

Out of 63 respondents, 53 (84%) reported no reactions to previous injections they received. The remaining 7 respondents reported adverse effects after a flu vaccine; one had a reaction to the hepatitis vaccine; and one to the tetanus vaccine. Among reported adverse effects were the following: new onset of wheat allergy; febrile infectious disease was reported by several respondents after the flu vaccine; amenorrhea for one year with extreme fatigue; a few reported strong allergic immediate reactions; severe pain and inflammation at injection site; transient right-side Bell's palsy.

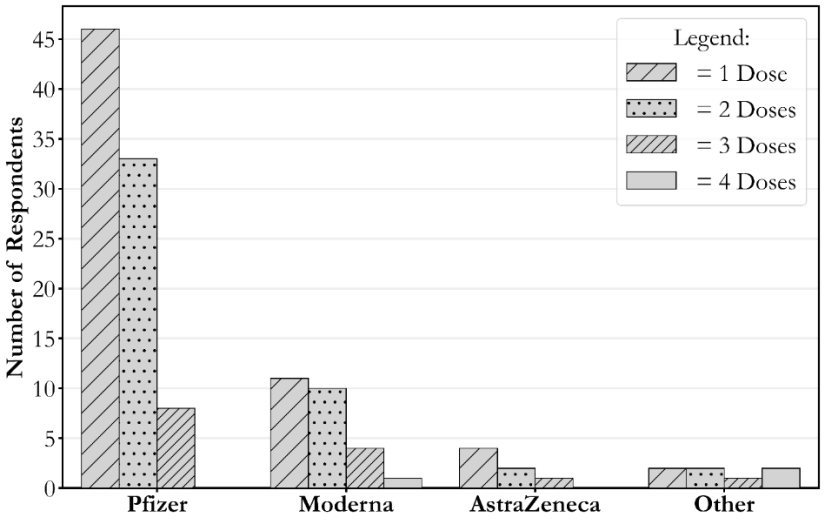

Figure 3. Vaccine uptake by brand and dose on the vertical axis with number of respondents who took that brand and dose on the vertical axis.

COVID-19 Vaccine Brands, Reason for Receipt and Consent

Most of the respondents (46 out of 63) reported having received the Pfizer vaccine, with a few different other brands being reported, primarily Moderna, as seen in Figure 3. Only 2 participants

took the 5th and the 6thshots, one of which was Moderna and the name of the other was not reported.

Out of 63 respondents, 44 (70 %) of them said they had volunteered to get a COVID-19 injection, whereas 19 out of 63 (30%) were coerced to do so under the penalty of losing their job if they failed to comply. Despite doing so,13 out of 63 (21 %) still lost their jobs (some of them, presumably, because they were unable to continue working after the injuries received from the injectables). Moreover, not a single one of the participants in our survey was ever given any warning information saying they were participating in a clinical trial and that the injectables were experimental. Nobody was asked to give written informed consent for such experimental use of human beings.

Clinical Consequences After the COVID-19 Injectables

After the onset of the symptoms 6/63 (9.5%) of the respondents continued to be able to perform their home routine completely but 40/63 (64) could only do part of what they had done beforehand, and 17/63 (27%) of the respondents could not perform their ordinary routines at home. Adverse effects were reported to have appeared after the first dose of COVID-19 "vaccine" in 38/63 respondents; after the second dose in 21 respondents; and the third in 4 cases. It is noteworthy, that 40 of 48 (83 %) respondents reported that the symptoms got worse or returned each time after the next dose. With each new injection 37 out of 48 respondents reported additional symptoms. Visible bleeding at the site of injection was reported by 13 (21 %) of the respondents.

After the onset of clinical symptoms, 59 (94%) of the 63 respondents contacted their doctor or some practicing healthcare professional. These respondents presented a long list of their diagnoses. Here, to avoid making this report many pages long, we focus attention on two cases showing the typical clinical diagnoses obtained after the onset of adverse effects. As seen, a wide-range spectrum of diagnoses was done. In some cases, the core diagnosis of Y59[1] was not, however, recorded.

Patient 1 (example):

- Y59 Adverse effect of Comirnaty vaccine
- G90.8 dysautonomia (cognitive disorder, sensory disorder, visual disorder).
- U09.9 Long COVID (partially caused by vaccine).
- F41.9 anxiety disorder
- F45.4 Long-term pain syndrome

Patient 2(example):

- M25.5 Joint pain M25.5

[1] This diagnosis comes from the International Classification of Diseases, Tenth Revision (ICD-10). The ICD-10 system is maintained by WHO and used by physicians to classify and code all diagnoses, symptoms and procedures. In the ICD 10 code the diagnosis Y59 means "Other and unspecified vaccines and biological substances". This code is in the section XX "External causes of morbidity and mortality" under category Y40-Y59 "Drugs, medicaments and biological substances causing adverse effects in therapeutic use").

- R07.3 Unspecified chest pain
- M02.9 Unspecified reactive arthritis, suspected.
- G43 Migraine
- M54.9 Unspecified back pain
- G56.0 Carpal tunnel syndrome, l. dx
- R10.3 Lower abdominal pain
- R00.2 Heart palpitations
- D01 Abdominal pain, general
- M72.2 Fibromatosis of the membranous tendon of the sole of the foot
- D06 Abdominal pain, local, other
- R83 Respiratory tract infection, other
- R51.80 Headache
- J02.9 Unspecified acute pharyngitis
- H81.1 Benign paroxysmal vertigo (suspected)
- R42 Vertigo and dizziness
- J06.9 Unspecified acute upper respiratory tract infection
- I10 Essential (primary) hypertension
- R50.9 Unspecified fever

In Table 2, we summarize symptoms for all respondents. The list shows the spectrum of ailments reported. Of particular concern is the frequency of heart-related symptoms such as elevated pulse, chest pain, and irregularities of heart rate (arrhythmia). Also, neurological symptoms such as fatigue, pain, and cognitive impairment (brain fog) were the most reported symptoms. With respect to their earliest symptoms, most respondents reported encountering them after the first shot (38/63 = 60%), whereas 21 (33%) and 4 (6%) people reported noticing the first adverse reaction after the second and third shots, respectively. Symptoms were reported to have been aggravated after each injection in 40/48 (83%) of the respondents, but in 8 of the 48 (17%) individuals who got more than one dose of COVID-19 "vaccine" symptoms did not seem to get worse. After the next injection new symptoms in addition to the previous symptoms were reported to have appeared by 37/48 (77%). On the time axis, symptom onset was mainly in the first 0-3 days (35 of 63, 55%) after injection, with 14 of 63 (22%) occurring during within the next 11 days, while the remaining 14 of 63 (22%) were reported to have occurred after 15 days or more, as illustrated in Figure 4.

Table 2
Descriptive Statistics for Symptoms

	Symptoms	N	%
Cardiovascular system disorders	Heart palpitations	42	67.0 %
	Unusually high heart rate	35	56.0 %
	Chest pain near the heart	27	43.0 %
	Unstable blood pressure	21	33.0 %
	Uneven pulse, flimmer	14	22.0 %
	Bleeding tendency	3	4.7 %
	Blood clot	1	1.6 %
Neurological & psychiatric disorders	Particularly strong exhaustion	47	75.0 %
	Sensations in the skin or muscles	39	62.0 %
	Brain fog	38	60.0 %
	Cognitive impairment (e.g., memory)	36	57.0 %
	Severe pain in some part of the body	35	56.0 %
	Dizziness	34	54.0 %
	Muscle pain	30	48.0 %
	Trembling of limbs	26	41.0 %
	Sensory deficits	26	41.0 %
	Insomnia, nightmares	25	40.0 %
	Nerve pain	25	40.0 %
	Tingling at the point of stinging	24	38.0 %
	Problem staying upright	23	37.0 %
	Noticeable deterioration of vision	23	37.0 %
	Particularly severe headache	23	37.0 %
	Tinnitus	22	35.0 %
	Muscle twitching	22	35.0 %
	Strong anxiety	22	35.0 %
	Skin burning	20	32.0 %
	Problems urinating and defecating	19	30.0 %
	Inability to perceive my own body (so-called zombie feeling)	18	29.0 %
	Hypersensitivity of all senses	18	29.0 %
	Taste and smell disorder	14	22.0 %
	Visual impairment (double vision)	13	21.0 %
	Speech disorders	13	21.0 %
	Depression	13	21.0 %
	Falling	7	11.0 %
	Hearing impairment	7	11.0 %
	Noticeable hearing loss	5	8.0 %
	Facial nerve palsy	4	6.0 %
	TIA episode	3	4.7 %
	Hallucinations	3	4.7 %

In most respondents, the symptoms were not transient, as claimed by the Finnish equivalent of the American Center for Disease Control and Prevention (CDC), which is known as the Institute for Health and Welfare (Terveyden ja hyvinvoinnin laitos in Finnish, abbreviated THL throughout what follows).[2] Out of 63 respondents 19 (30%) were admitted to the hospital because of the severity of their symptoms two to four times/year after the first dose of COVID-19 "vaccine" was received; and 9 patients (14.2%) reported visiting the hospital only one time because of their symptoms. Short-term medical rehabilitation, or retirement, due to the symptoms that appeared after the COVID-19 injections were proposed for 6 patients out of 63 (9.5%). The rehabilitation or retirement was recommended based on anxiety disorder, multiple sclerosis, chronic fatigue syndrome, or asthma.

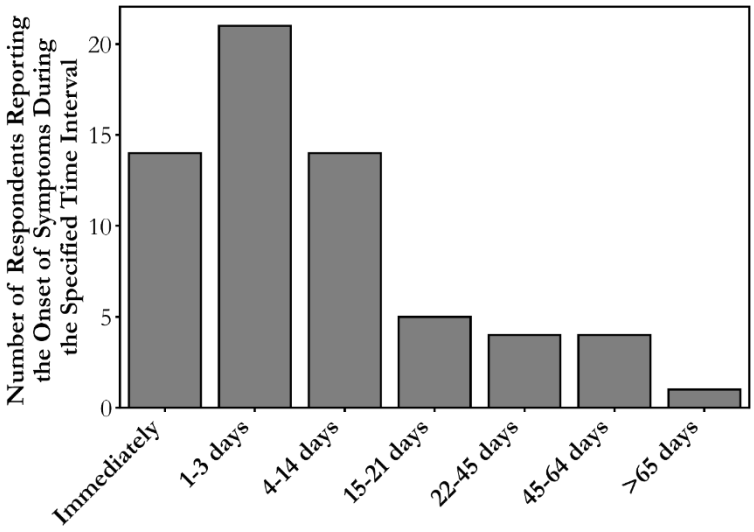

Figure 4. Time interval during which symptoms were reported to have begun on the horizontal and number of persons reporting the onset of symptoms in that time frame.

Evaluation of Healthcare Attitudes

Among the respondents, 41 out of 63 (65%) reported that the healthcare they received was unhelpful in the relief of the adverse effects they experienced. Even more, 52 out of 63 (83%), reported that they were not granted any medical exemption against the next injection based on the symptoms they had already reported after a prior injection. Despite not receiving any exemption, 58 of the 61 respondents (92%) nevertheless refused any further vaccinations because of what they believed were vaccine-related symptoms. Almost half of all respondents, 29 out of 63 (43%), reported that they experienced some pressure to continue with vaccination despite their symptoms. After receiving one or more vaccinations, 14 of the respondents (22%) reported contacting their primary healthcare facility 5-10 times/year whereas 39 respondents (62%) reported going more than 10 times/year.

In their own words the respondents described the attitudes of medical doctors concerning the adverse effects recipients complained about, such as "*indifferent, fearful, dismissive, nullifying, disbelieving, minimizing, ignoring, reckless, manipulative, discouraging, gaslighting, arrogant*, *timid, evasive, rude, offensive, confused, ignorant, diligent, oppressive, reluctant*": Some respondents encountered coercive insistence that they should receive subsequent vaccinations despite their symptoms.

[2]**Editor's Note:** The false claim that adverse outcomes of COVID-19 injections have been short-lived and mild has been made in thousands of publications. To wit, a Google Scholar search for the words "COVID-19 vaccine reactions are transient" on October 28, 2023 returned more than 7,200 hits.

On the other hand, some respondents encountered *understanding, kindness, compassion, empathy, fairness, gentleness, friendliness,* or *a nice attitude* and reported that they were examined carefully. Some doctors were concerned and confessed that they had never seen any such an adverse reaction before. Out of all respondents 43(68%) reported that the attitudes varied considerably and that often their complaints were qualified as mere "anxiousness", "psychosomatic", or owed to a "functional" disorder and 21(33%) respondents reported that they received better understanding from the private than from the public sector.

Only 30 respondents out of 63 (48%) got any confirmation from their doctors that their symptoms were indeed related to the vaccines. In 21 cases out of 30, the symptoms were documented in their medical histories. Adverse effects were reported by medical doctors or nurses to FIMEA in 10 out of 63 cases (16%). According to 16 patients who discussed their adverse effects with their doctors or nurses and asked them to report to FIMEA, no reports went forward. Out of 52 respondents, 35 directly reported their adverse effects to FIMEA themselves. The reasons given by the rest of the respondents for not reporting their adverse effects to any physician included:

- *Results were still missing; there was no diagnosis.*
- *They feared giving their own personal data.*
- *Poor physical condition was reported by many (exhaustion, tiredness, brain fog, being physically bedridden).*
- *There was no use in doing so.*
- *The inability and unwillingness of the health professionals to differentiate adverse effects caused by vaccination from the COVID-19 disease.*
- *The vaccination was taken abroad.*
- *The person's inability to connect the symptoms with the vaccination in the early stages, too much time having elapsed.*
- *Some respondents said they did not know the product codes.*
- *The doctors claimed the symptoms were not related to the vaccination received because too much time had elapsed.*
- *The person was still looking for a doctor to make a report to FIMEA.*
- *Many did not realize at the beginning that their symptoms were due to the vaccine they received.*

Disproportionality Analysis

Disproportionality analysis is a routine commonly applied in Pharmacovigilance (Almenoff et al. 2007). It attempts to evaluate the hypothesis that adverse events and drug products are not related by evaluating whether reported events for one product are proportional to reported events for other products. It relies on the logic that if there is no connection between the drug and the adverse event in question, then the number of reported events should be proportional to the quantity of drugs given, since the more people you are looking at the more likely you are to find a randomly occurring event under this hypothesis of no connection. Typically, the extent to which a given drug is administered in the population is not well known, and for this reason such analytical routines attempt to estimate the rate of administration by comparing rates of event A to the total rate of all events reported to a pharmacovigilance database. In the case of COVID-19 vaccines, however, the authorities have very thoroughly recorded and published the number of administered doses. In

Finland, these statistics have even been presented per vaccine brand. This enables us to know the amount of administered product, and simplify the otherwise slightly complicated calculations used in disproportionality analyses.

We define here the Relative Reporting Rate (RRR) for adverse event *i* as

$$RRR_i = \frac{a_i/b_i}{c_i/d_i}$$

Where *a* is the number of AE cases among Pfizer recipients in our survey and *b* is the number of administered doses of the Pfizer vaccine in Finland, and similarly *c* is the number of AE reports among Moderna recipients and *d* is the number of administered doses of the Moderna vaccine in Finland.

According to the Finnish health authorities (THL), 10,230,025 doses of the Pfizer vaccine and 2,060,929 doses of the Moderna vaccine were given by 13 October 2023 (Koronarokotukset Suomessa 2023 — THL). If all of the adverse events reported by our respondents were unrelated to the vaccine, then the number of reported events should be solely dependent on how many people were exposed to the vaccine, with no differences based on brand. In other words, if an unrelated adverse event occurred once per 1000 people in the vaccination period, there should be 10,230 events among Pfizer recipients and 2,060 events among Moderna recipients, and the RRR would be equal to 1.

We examined RRRs between Pfizer and Moderna for symptoms that were reported by at least half of the respondents, comprising 13 different symptoms. These symptoms are listed sorted by frequency of occurrence in Table 3, ranked from most common to least. There was a statistically significant difference for four symptoms — specifically, "Pain at injection site", "Joint- and muscle pain", "Unexplained high pulse", and "Severe pain somewhere in the body"). While the RRR values for the remaining 9 symptoms are not statistically significant at α=0.05 when taken alone, there are several notable non-random data patterns here. Most importantly, the probability that the prevalence would be higher among Moderna recipients (RRR<1) for all of the 13 most common symptoms by chance is extremely remote. If the reported symptoms were all background events falsely associated with the vaccine, there should be no difference in reporting rates for Pfizer and Moderna, and the probability of a higher prevalence for either of those brands would be comparable to the toss of a coin. When tossing a coin 13 times in a row, the probability of getting 13 equal outcomes is equal to $p=2^{-12}=0.0002$ (the first toss can be either heads/Pfizer or tails/Moderna, as long as the remaining 12 are the same, therefore 2^{-12}, not $p=2^{-13}$). In other words, it it practically impossible that all these RRRs are below 1 by chance alone. This observation is also supported by the distribution of the p-values. By definition, under the null hypothesis (in this case "no connection between AE and vaccine"), the *p*-values should follow a uniform distribution from 0 to 1. In Table 3, 11 out of 13 *p*-values are less than 0.15 – the probability of getting this pattern by chance alone is also extremely unlikely (comparable to throwing a die 13 times and getting 6 on the die 11 times).

In other words, the RRRs values shown here prove beyond any reasonable doubt that Moderna recipients report symptoms much more frequently than Pfizer recipients, in a manner that is highly statistically significant.

Table 3
Relative Reporting Rates (RRR) of Symptoms between Brands

Symptom	Brand				RRR Pfizer/Moderna [Rate (95% CI)]		p-value
	Pfizer	Moderna	AstraZeneca	Other			
Brain fog	25	9	3	2	0.56	(0.26-1.2)	0.136
Extreme fatigue	28	11	3	2	0.51	(0.26-1.03)	0.058
Pain at injection site	17	11	4	2	0.31	(0.15-0.66)	**0.002***
Cognitive impairment (e.g., memory)	18	8	3	4	0.45	(0.2-1.04)	0.060
Neurological symptoms	28	9	1	4	0.63	(0.3-1.33)	0.228
Joint- and muscle pain	25	11	4	4	0.46	(0.23-0.93)	**0.032***
Vision impairment	21	8	3	3	0.53	(0.23-1.19)	0.126
Unusually high pulse	20	10	3	3	0.4	(0.19-0.86)	**0.018***
Difficulty standing upright, vertigo	22	8	2	3	0.55	(0.25-1.24)	0.148
Heart palpitations	24	10	3	4	0.48	(0.23-1.01)	0.051
Sensations in the skin or in muscles	19	8	3	3	0.48	(0.21-1.09)	0.082
Severe pain somewhere in the body	20	9	3	2	0.45	(0.2-0.98)	**0.047***
Severe pain in lower extremities, hip or lower back	19	6	4	4	0.64	(0.25-1.6)	0.341

* Statistically significant at α-level 0.05.

The far-reaching significance and implications of these observed differences can hardly be overstated. The only way one could see such patterns without the vaccine being the cause of the adverse events, is if there were another confounding variable associated with vaccine brand that would cause Moderna recipients to report events at higher rates than Pfizer recipients. While such confounders might be theoretically possible, by the precautionary principle, the main suspect must be the novel therapeutical intervention until emphatically and unequivocally proven otherwise.

The contrasts reported in Table 3 enable us to rule out any explanation that would attribute the observed differences to purely chance associations between the experimental injectables and reported symptoms. This is further supported by the difference both in dose and antibody response between the Moderna and Pfizer vaccines. Moderna vaccines contain three times the mRNA of the Pfizer vaccine (100µg vs. 30µg) and also elicit much higher antibody titers, as reported by, among others, Tyner et al. (2022). Given these observations, it is only reasonable to expect that if the vaccines did cause (serious) adverse events, the prevalence of such events would be higher among the people who received the more potent Moderna dose. This is exactly what we see with the RRR-values in Table 3.

Background noise (accidental associations) cannot explain the difference in prevalence of adverse events between Pfizer and Moderna vaccines. Instead, the survey data indicate that the reported adverse events and symptoms are causally related to the injectables.

Survey Sampling Bias

The present survey represents a sample from the Finnish population. Since self-reported surveys like this depend on respondents' willingness to do the necessary work of filling out a lengthy questionnaire, sampling bias is expected, particularly in dimensions that affect such willingness. By comparing characteristics of the sample population, it is possible to estimate the impact of such biases and we can draw some reasonable inferences about likely under- and over-reporting..

There are also two further known biases in the data — *healthcare workers are over-represented* and *women are over-represented*. Let's first consider the healthcare worker bias. Although healthcare workers are hardly more inclined to imagining health issues than the rest of the population, they were in fact the only group to be forced to take the vaccines by law (cf. 48a paragraph of the TTL (*HE 226/2021 vp*, 2021), under penalty of losing their work. This could impact their willingness to report, whereas other people who were injured, but who took the injections voluntarily, may not have had sufficient motivation to report their injuries. An additional explanation could be that healthcare workers are more familiar with reporting systems, and that they are trained to recognize health issues and their possible causes.

Given that healthcare workers only comprise a fraction of the Finnish work force — 355,000 (*Terveys-ja sosiaalipalvelujen henkilöstö 2020 — THL*, 2020) out of 2.5M (Hannula, 2022), or 14% - this appears to be a massive selection bias in the data. There are only a few ways the skewed representation of healthcare workers can be explained — either HC-workers are more prone to react to the vaccines, or they are more prone to report when experiencing a reaction, or, if the reports were background rates, they are much sicker than the average population. Both the former and the latter options are very unlikely, leaving the middle option as more likely, namely, that healthcare workers are more likely to issue reports of adverse events.

Given that reports cannot reasonably be attributed to background events — because of brand-dependent reporting rate differences — this middle scenario of those more prone to report very likely means that large segments of the non-healthcare population have probably been equally affected but have left their own adverse outcomes unreported. If we were to attempt to equalize the reporting rates (29 people, 46%) to match the work force representation of healthcare workers (14% of work force), one would have to add 144 non-healthcare workers to the report. This means the original 63 respondents comprise only 30% of the sort of balanced sample that would be needed to accurately represent the Finnish population.

Similarly, only 13% of respondents are male, which is likely attributable to gender culture, where men are less likely to seek help or express concern about health issues. It is highly unlikely that adverse reactions to the vaccine would strike the sexes so differently, and while slight differences are possible, it is reasonable to expect a close to equal distribution between the sexes. This indicates that the present survey has not captured the attention of vaccine-injured men to the same extent as women, which again strongly indicates that there are many more injured men in the Finnish population that have not reported their injuries.

These two imbalances among the survey respondents — difference based on gender and profession — indicate that the present survey only represents a fraction of the people injured by COVID-injectables in Finland.

Conclusions

Our questionnaire penetrated only into a small slice of the Finnish cohort that might have experienced adverse effects after the COVID-19 injectables. The limitation of the study is evident: the number of participants is low despite a high incidence of reported adverse effects all over the world. The reason for a very low capture of all the victims of adverse events is probably our inability to reach most patients, possibly combined with lethargy and hopelessness in patients who do not believe in the force of any honest investigation aiming to improve their status, or fear of persecution, mockery, deprivation of proper medical care or loss of income if they speak out. The strengths of our survey is the in-depth dwelling into the medical, social and ethical consequences of the so-called COVID-19 "vaccination campaign".

Despite the small sample size and overrepresentation of females and HC workers, the results of this questionnaire provide some insight into the situation for the broader population of Finland. The results are also corroborated by observations reported by others (Lee et al., 2023; Yamamoto, 2022), although the present study did not report sudden death. The results presented here allow us to draw the following conclusions.

1. Adverse effects after the COVID19 injections are real but highly neglected, there is a temporal correlation between the injections and the experienced symptoms; there is a dose-response effect: with each following injection the symptoms re-appeared or worsened. There are also differences in symptom prevalence based on vaccine brand. This observation is strong evidence of causal connection between the symptoms and the intervention and supports the notion of the dose-response effect.
2. Many of the respondents experienced coercion and lost their confidence in medical and public health systems. The medical system failed to properly receive and care for victims who experienced adverse reactions from the mandated treatments based on novel therapy known *a priori* to be questionable as a population-wide medical intervention.
3. Despite being previously compliant with the vaccinations, many of the participants were mocked as anti-vaxxers, conspiracy theorists or other derogatory terms used to undermine legitimacy, and many respondents lost their jobs despite complying with the tyrannical mandates.
4. The quality of life of the respondents dropped dramatically after their participation in this mass experiment.
5. Doctors are frightened to discuss the benefit-to-harm ratio of these medical products that seem to enjoy a glorified status as a panacea among the medical community. This reluctance is more problematic given the long list of diagnoses given to the victims of the products.
6. Current safety monitoring systems are unsatisfactory. Medical doctors and nurses are reluctant to raise awareness of the adverse effects, exacerbated by the fact that medical personnel are not obliged to report events they are made aware of, thus creating bias in the perception of the vaccine safety signals.

7. Not a single person was explained that he/she participated in a clinical experiment and informed written consent was not obtained, despite the existence of the Helsinki Declaration (Cardozo & Veazey, 2021).
8. COVID-19 vaccinations added a great burden to a health care system already pressed for resources, raising the question of cost-benefit not only for the individual but also for society as a whole.

In summary, the consequences of COVID-19 vaccination intervention have been devastating. Global rollout of treatments released under provisional approval, whose long-term safety profile cannot be known, should be stopped immediately and these products should never be incorporated into routine public health use. Medical doctors should be educated to acknowledge vaccine adverse effects, the surveillance system should be proactive with full public access to anonymized data, and large-scale debates on the pandemic response and medical ethics in general are warranted.

Authors contribution

Tamara Tuuminen and Pasi Suominen conceptualized the study, Pasi Suominen constructed and modified the questionnaire and logic program for mobile devices and computer friendly also checked the personality of every participant. Tore Gulbrandsen performed the statistical analyses, Tamara Tuuminen wrote the first draft, and the final version was approved by all the authors.

Acknowledgements

We acknowledge the help from Annina Salmela and the vaccine injured patient group for their collaboration.

Dedication

We dedicate this work to all the victims of the COVID-19 injectables hoping that this willful misconduct will not happen again.

Conflict of interest

None

Funding

None

References

Almenoff, J. S., Pattishall, E. N., Gibbs, T. G., DuMouchel, W., Evans, S. J. W., & Yuen, N. (2007). Novel statistical tools for monitoring the safety of marketed drugs. Clinical Pharmacology and Therapeutics, 82(2), 157–166. https://doi.org/10.1038/sj.clpt.6100258

Cardozo, T., & Veazey, R. (2021). Informed consent disclosure to vaccine trial subjects of risk of COVID-19 vaccines worsening clinical disease. *International Journal of Clinical Practice*, *75*(3), e13795. https://doi.org/10.1111/ijcp.13795

Chen, Y., Xu, Z., Wang, P., Li, X.-M., Shuai, Z.-W., Ye, D.-Q., & Pan, H.-F. (2022). New-onset autoimmune phenomena post-COVID-19 vaccination. *Immunology*, *165*(4), 386–401. https://doi.org/10.1111/imm.13443

Cohen, D., & Carter, P. (2010). WHO and the pandemic flu "conspiracies." *BMJ*, *340*(jun03 4), c2912–c2912. https://doi.org/10.1136/bmj.c2912

Hannula, U. (2022, April 5). *Tilastokeskus—Työvoimatutkimus*. Tilastokeskus. https://www.stat.fi/til/tyti/2020/13/tyti_2020_13_2021-03-04_tie_001_fi.html

HE 226/2021 vp. (2021). https://www.eduskunta.fi:443/FI/vaski/KasittelytiedotValtiopaivaasia/Sivut/HE_226+2021.aspx

Hyvönen, S., Lohi, J., & Tuuminen, T. (2020). Moist and Mold Exposure is Associated With High Prevalence of Neurological Symptoms and MCS in a Finnish Hospital Workers Cohort. *Safety and Health at Work*, *11*(2), 173–177. https://doi.org/10.1016/j.shaw.2020.01.003

Koronarokotukset Suomessa 2023 — *THL*. (2023, October 13) Terveyden ja hyvinvoinnin laitos. https://sampo.thl.fi/pivot/prod/fi/vaccreg/cov19cov/fact_cov19cov

Kyrie, V., & Broudy, D. (2022). Cyborgs R Us: The bio-nano panopticon of injected bodies? *International Journal of Vaccine Theory, Practice, and Research*, *2*(2), 355–383. https://doi.org/10.56098/ijvtpr.v2i2.49

Lee, D. Y., Kang, D. Y., Kim, E., Lee, S., Baek, J. H., Lee, J.-S., Park, M. Y., & Im, J. H. (2023). Adverse events of a third dose of BNT162b2 mRNA COVID-19 vaccine among Korean healthcare workers. *Medicine*, *102*(11), e33236. https://doi.org/10.1097/MD.0000000000033236

Nakahara, T., Iwabuchi, Y., Miyazawa, R., Tonda, K., Shiga, T., Strauss, H. W., Antoniades, C., Narula, J., & Jinzaki, M. (2023). Assessment of Myocardial 18F-FDG Uptake at PET/CT in Asymptomatic SARS-CoV-2-vaccinated and Nonvaccinated Patients. *Radiology*, *308*(3), e230743. https://doi.org/10.1148/radiol.230743

Oller, J. W., & Santiago, D. (2022). All cause mortality and COVID-19 injections: Evidence from 28 weeks of Public Health England "COVID-19 vaccine surveillance reports." *International Journal of Vaccine Theory, Practice, and Research*, *2*(2), 301–319. https://doi.org/10.56098/ijvtpr.v2i2.42

Parry, P. I., Lefringhausen, A., Turni, C., Neil, C. J., Cosford, R., Hudson, N. J., & Gillespie, J. (2023). 'Spikeopathy': COVID-19 Spike Protein Is Pathogenic, from Both Virus and Vaccine mRNA. *Biomedicines*, *11*(8), Article 8. https://doi.org/10.3390/biomedicines11082287

Santiago, D. (2022). Playing Russian Roulette with Every COVID-19 Injection: The Deadly Global Game. *International Journal of Vaccine Theory, Practice, and Research*, *2*(2), 619–650. https://doi.org/10.56098/ijvtpr.v2i2.36

Santiago, D., & Oller, J. W. (2023). Abnormal clots and all-cause mortality during the pandemic experiment: Five doses of COVID-19 vaccine are evidently lethal to nearly all medicare participants. *International Journal of Vaccine Theory, Practice, and Research, 3*(1), 847–890. https://doi.org/10.56098/ijvtpr.v3i1.73

Terveys-ja sosiaalipalvelujen henkilöstö 2020 — THL. (2020, July 6). Terveyden ja hyvinvoinnin laitos. https://thl.fi/fi/tilastot-ja-data/tilastot-aiheittain/sosiaali-ja-terveydenhuollon-resurssit/terveys-ja-sosiaalipalvelujen-henkilosto

Tyner, H. L., Burgess, J. L., Grant, L., Gaglani, M., Kuntz, J. L., Naleway, A. L., Thornburg, N. J., Caban-Martinez, A. J., Yoon, S. K., Herring, M. K., Beitel, S. C., Blanton, L., Nikolich-Zugich, J., Thiese, M. S., Pleasants, J. F., Fowlkes, A. L., Lutrick, K., Dunnigan, K., Yoo, Y. M., … Thompson, M. G. (2022). Neutralizing Antibody Response to Pseudotype Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Differs Between mRNA-1273 and BNT162b2 Coronavirus Disease 2019 (COVID-19) Vaccines and by History of SARS-CoV-2 Infection. Clinical Infectious Diseases: An Official Publication of the Infectious Diseases Society of America, 75(1), e827–e837. https://doi.org/10.1093/cid/ciab1038

Yamamoto, K. (2022). Adverse effects of COVID-19 vaccines and measures to prevent them. *Virology Journal*, *19*, 100. https://doi.org/10.1186/s12985-022-01831-0

Legal Disclaimer