

Supplementary Table 1. Selected items of measures in this study

Measures	Items	Response scale
Depression (DRPST): in recent one month, do you have the following symptoms persisted more than two weeks?	Item 1: Depressed mood most of the day, nearly every day.	0=no, 1=yes
	Item 2: Fatigue or loss of energy nearly every day.	0=no, 1=yes
	Item 3: Feeling of worthlessness or excessive or inappropriate guilt nearly every day.	0=no, 1=yes
PTSD (DRPST): in recent one month, do you have the following symptoms persisted more than one week due to COVID-19	Item 1: Hypervigilance or difficulty to be relaxed, even without information about COVID-19.	0=not at all, 1=minimal, 2=moderate, 3=predominant, 4=extreme
	Item 2: Emergence of somatic symptoms (e.g. palpitation, tremor, sweating, or muscle rigidity) when hearing about COVID-19.	0=not at all, 1=minimal, 2=moderate, 3=predominant, 4=extreme
	Item 3: Efforts to avoid activities, places, people or information that arouse recollections of the COVID-19.	0=not at all, 1=minimal, 2=moderate, 3=predominant, 4=extreme
	Item 4: Acting or feeling as if the trauma were recurring (re-experience), and feel distressed.	0=not at all, 1=minimal, 2=moderate, 3=predominant, 4=extreme
Sleep (PSQI): during the past month	Item 1: Do you cannot get to sleep within 30 minutes?	1=not during the past month, 2=less than once a week, 3=once or twice a week, 4=three or more times a week
	Item 2: Do you wake up in the middle night or early morning, and you cannot sleep again?	1=not during the past month, 2=less than once a week, 3=once or twice a week, 4=three or more times a week
	Item 3: How would you rate your sleep quality overall?	1=very good, 2=fairly good, 3=fairly bad, 4=very bad
	Item 4: How much of a problem has it been for you to keep up enough enthusiasm to get things done?	1=not a problem at all, 2=only a very slight problem, 3=somewhat of a problem, 4=a very big problem
Mistrust of vaccine benefit (VAX): what specific concerns do you have about vaccinations?	Item 1: I feel safe after being vaccinated.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
	Item 2: I can rely on vaccines to stop serious infectious diseases.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
	Item 3: I feel protected after getting vaccinated.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
Worries about unforeseen future effects (VAX): what specific concerns do you have about vaccinations?	Item 1: Although most vaccines appear to be safe, there may be problems that we have not yet discovered.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
	Item 2: Vaccines can cause unforeseen problems in children.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
	Item 3: I worry about the unknown effects of vaccines in the future.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
Concerns about commercial profiteering (VAX): what specific concerns do you have about vaccinations?	Item 1: Vaccines make a lot of money for pharmaceutical companies, but do not do much for regular people.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
	Item 2: Authorities promote vaccination for financial gain, not for people's health.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
	Item 3: Vaccination programs are a big con.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
Preference for natural immunity (VAX): what specific concerns do you have about vaccinations?	Item 1: Natural immunity lasts longer than a vaccination.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
	Item 2: Natural exposure to viruses and germs gives the safest protection.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree
	Item 3: Being exposed to diseases naturally is safer for the immune system than being exposed through vaccination.	1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6=strongly agree

DRPST, Disaster-Related Psychological Screening Test; PTSD, posttraumatic stress disorder; COVID-19, coronavirus disease 2019; PSQI, Pittsburgh Sleep Quality Index; VAX, Vaccination Attitudes Examination Scale