Table 1. Overview of quantitative studies assessing how the work environment is affected by the Covid-19 pandemic in the healthcare industry (research question 1).

No	Author (year)	Country	Population	Design n= at follow-up	Exposure	Result	Subgroup comparison	Overall quality
1	Alexiou (2021)	Sweden	Psychiatric healthcare workers	Repeated cross-sectional study. Survey n=566	1. Job demands *a. Job quantity b. Energy after work c. Can set job thoughts aside d. Rested and recovered off work e. Recovery through breaks* 2. Job control *a. Ability to plan work b. Job expectations* 3. Job support *a. Support from manager b. Emotional support* 4. Work skills used in the right way	The proportion that answered disagree, or strongly disagree (p<0.05) to the following questions increased during the Covid-19-pandemic for energy after work, can set job thoughts aside, rested and recovered off work, ability to plan work, job expectations, emotional support, looking forward to work, that is indicating a more negative perception of those factors during the pandemic. In the overall effects (mean value for all questions for all participants), job quantity (Estimate: 0.26 (95% CI 0.06-0.46)), rested and recovered off work (−0.20 (−0.38 to −0.01)), ability to plan work (−0.40 (−0.59 to −0.20)), job expectations (−0.35 (−0.47 to −0.22 emotional support (−0.38 (−0.57 to −0.20).	Nurses had to a higher extent a negative impact of the pandemic on perceived working conditions and ability to recover than other professional groups.	Medium
2	Coelho (2022)	Brazil	Healthcare workers	Longitudinal cohort study n=218	1. Job stress 2. Shift work	The proportion of participants that reported increased job stress increased from 14.2 to 29.4 per cent (p<0.001) and those indicating shift work from 31.2 to 39.4 per cent (p=0.002) during the pandemic compared to before the pandemic.	The increase in job stress was greater among health professionals compared with other hospital workers.	Medium
3	Gray (2021)	USA	Critical care physicians	Longitudinal cohort study Internet survey n=1356	1. ICU staff shortage 2. PPE shortage	No significant difference in ICU staff shortage from the spring to fall of 2020 for staffing. A significant difference in PPE shortage from spring 2020 to fall 2020, from 52.7 per cent to 21.9 per cent (p<0.001).	No	Medium
4	Hoogen-doorn (2021)	Netherlands	Nurses within intensive care units	Repeated cross-sectional study (on registers) n=36754 shifts	1. Workload 2. Nurses per patient	A higher workload, measured by a nursing activity score (0-100) based on 23 common tasks by intensive care nurse (76.5 versus 50.0, p<0.001) and a higher number of patients per nurse (1.1 versus 1.0, p<0.001) were found during the covid-19 period compared with a non-covid-19 period. The activities performed more often were intense hygienic procedures, mobilization and positioning, support and care for relatives, and respiratory care.	No	Medium
5	Jonsdot-tir (2021)	Sweden	Hospital employees	Repeated cross-sectional survey .	1. Job demands *a. Job quantity b. Energy after work c. Can set job thoughts aside*	The proportion that answered disagree, or strongly disagree (p<0.05) increased during the Covid-19-pandemic for all factors for ICU workers and all except job quantity, recovery through breaks, and work skills used in the right way for all hospital workers.	Men reported better working conditions than women for all items except for the use of competence	Medium

				n=6816	d. *Rested and recovered off work* e. *Recovery through breaks* 2. Job control a. *Ability to plan work* b. *Job expectations* 3. Job support a. *Support from manager* b. *emotional support* 4. Work skills used in the right way			and higher age was significantly related to the perception of better work conditions for all items except for support from managers (p=0.6).	
6	Magnavita (2021)	Italy	Frontline workers (in one hospital)	Repeated cross-sectional study n=152	1. Job stress 2. Workload 3. Repetitive and monotonous work	When questioned about changes in their work due to the pandemic, workers reported that they agreed that job stress, measured on a four-graded scale, increased during from 1,31 during the first wave of the pandemic to 1,54 to the second wave of the pandemic. The workload was higher during the second wave of the pandemic (86%) compared to the first wave of the pandemic (52%, p=0.000).	No	Medium
7	Richaud (2022)	Argentina	Healthcare workers involved in the care of patients with Covid-19	Repeated cross-sectional surveys (three assessments) n=528	1. Availability of adequate PPE 2. Exhaustion at work 3. Change in the work environment 4. Support to healthcare workers	No differences in the availability of adequate protection equipment, 63.2% of the participants answered that they did not have the appropriate equipment in all periods. 69.6% of the participants perceived that the work environment had been worse after the start of the pandemic, and 79.4% believed that the work environment got worse in the third period (p=0.000). Support to healthcare workers seems to have increased during the periods, from 29.9% answering yes in the first period to 35.7% in the last period (p=0.009). Exhaustion at work increased from 66.8% in the first period to 79.2% in the third (p=0.001)	No	Medium
8	Sandal (2021)	Turkey	Healthcare workers	Repeated cross-sectional study n=141	1. Support for job stress 2. PPE a. Special waiting area for patients with Covid-19 b. Special rooms for aerosol-generating procedures c. Special wards for Covid-19-patients d. Displaying signs on the use of facial masks	Those answering yes to the question regarding the availability of psychological and behavioural support increased from 12% in the first survey to 23% in the second survey (p=0.001). The percentages of answers of "yes" to the questions related to administrative measures or "supplied whenever required" to the questions related to PPE were increased in all items, with a statistically significant improvement for all measures except regarding the provision of a waiting area and rooms for aerosol-generating procedures.	Differences were observed for the provision of a waiting area, rooms for aerosol-generating procedures, and special wards for patients with suspected or definite Covid-19; testing staff with a history of contact with a Covid-19 case; and	Medium

					e. Testing staff with a contact with a Covid-19 case f. Occupational safety and health training g. Supply of soap h. Supply of hand sanitiser with at least 60 degrees of ethyl alcohol i. Supply of disposable gloves j. Supply of surgical mask k. Supply of facial protector l. Supply of goggles m. Supply of apron n. Supply of gown		surveillance of symptomatic staff, between tertiary vs. primary and secondary healthcare facilities in the first survey, but only for the provision of special wards and supply for aprons in the second survey.

ICU = Intensive care unit

PPE = Personal protective equipment

Table 2. Overview of quantitative studies assessing the associations between work environment factors and health in the healthcare industry during the Covid-19 pandemic (research question 2).

No	Author (year)	Country	Population	Design n=at follow-up	Exposure	Outcome	The association between WE and health	Subgroup comparison	Overall quality
1	Ahmed (2020)	China	Nurses	Three-wave longitudinal study n=405	Inclusive leadership, psychological safety (mediation)	Psychological distress (6-item scale developed by Kessler and Mroczek, 1994)	Inclusive leadership was negatively associated with psychological distress (mean -0.138; CI -0.413, -0.269) and positively associated with psychological safety (mean 0.498; CI 0.431, 0.570). There was furthermore a mediation effect of psychological safety (p<0.001).	Gender and education – no differences between the groups	Medium
2	Alonso (2021)	Spain	Healthcare workers	Longitudinal survey n=4809	Several workplace exposures (e.g. perceived lack of care centre preparedness, average weekly hours worked, lack of PPE, factors associated with care for Covid-19 patients)	Major depressive disorder, generalised anxiety disorder, post-traumatic stress disorder, substance use disorder	Among those with no mental disorder at baseline, any mental disorder was associated with having been isolated or quarantined (OR 1.51; 95 % CI 1.08, 2.11), direct exposure to Covid-19 patients (OR 1.28; 95 % CI 1.13, 1.45), perceived lack of workplace preparedness (OR 1.36; 95 % CI 1.24, 1.49), lack of protective equipment (OR 1.29; 95 % CI 1.12, 1.47), having to make decisions regarding prioritising care among Covid-19 patients (OR 1.62; 95 % CI 1.27, 2.16), and having patients in care die from Covid-19 (OR 1.34; 95 % CI 1.05, 1.71).	No	Medium
3	Canal-Rivero (2022)	Spain	Healthcare workers	A prospective longitudinal survey n=251	Covid-19 exposure, access to PPE, pressed not to wear protective material, well defined protocol, working more hours, receive conflicting information, etc	Acute stress reaction (Stanford Acute Stress Reaction Questionnaire, SASRQ)	No association between the work environment factors and the outcomes, except for frontline healthcare workers. Being a frontline healthcare worker was associated with the SASRQ subscales *hyperarousal* (Beta 0.37; p=0.02 CI 0.07-0.67) and *avoiding* (Beta 0.52; p<0.01; CI 0.16-0.88).	No	Medium

4	Coelho (2022)	Brazil	371 workers from different sectors of the hospital	Longitudinal study that used baseline data and first follow-up n=218	Shift work, occupational stress (demand, control and social support)	BMI, waist circumference, body fat, health self-perception, and CVD factors	No association between occupational stress (demand/control/support) and health outcomes. Increased amount of shift work was related to changes in BMI, in the overall sample (OR 3.79; 95% CI; 1.40, 10.30) and in health workers (OR 11.56; 95 % CI 2.57, 52.00), as well as to changes in abdominal obesity only in women (OR 3.59; 95% CI 1.12, 11.51).	Sex, overall sample vs health workers	Medium
5	Dale (2021)	USA	Healthcare providers	Longitudinal cohort n=204	Self-moral injury, Others moral injury, Leadership support	Exhaustion and disengagement (Professional Fulfilment Index, 16 items)	Self-moral injury (Beta 0.19; $p = 0.026$) and leadership support (Beta -0.027; $p < 0.001$) were associated with exhaustion. Self-moral injury (Beta 0.20; $p = 0.033$), Covid-19 work impact (Beta 2.69; $p = 0.008$), and Leadership support (-2.72; $p = 0.008$) were associated with disengagement.	No	Medium
6	Dávila-Conn (2022)	Mexico	Healthcare personnel	Longitudinal cohort study n=833	Use of PPE, use of face mask, hand washing, contact with Covid-19 patients, contact with any known or suspect Covid-19 case, handling biological specimens	Anti-SARS-CoV-2 protein	Prevalent cases showed associations with both occupational (OR 2.24; 95 % CI 1.54, 3.25) and community (OR 2.03; 95 % CI 1.09, 3.79) risk factors. Contact with any suspected or confirmed Covid-19 case in the previous 15 days increased the hazard of becoming an incident case (HR 2.5; 95 % CI 1.2, 5.0) No additional hazard associations were observed including use of PPE, contact with Covid-19 patients or use of public transport.	Occupation: Hazard of incident cases higher among physicians, nurses and administrative staff than among other occupations	Medium
7	DeKock (2022)	UK	Health and social care workers	Questionnaire n=169	Hours of work, work with Covid-19 patients	Depression (Patient Health Questionnaire- 9), Anxiety, (Generalised Anxiety Disorder-	Working with Covid-19 patients and disruption because of Covid-19 were associated with adverse mental health changes over time. For example, working directly with Covid-19 was associated with a change in depression score (2.8; 95 % CI 0.74, 4.87) and moderate disruption resulting from Covid	No	Medium

					7 (GAD-7) Mental well-being (Warwick–Edinburgh Mental Well-being Scale (WEMWBS)	-19 was associated with a change in mental well-being score (-12.12; 95 % CI -23.14, -1.11).		
8	Doernberg (2022)	USA	Healthcare workers	Longitudinal cohort study n=768	Exposure to Covid-19 patient (high risk vs. low-risk)	Covid-19 infection	Contact at work was not associated with Covid-19 infection unless accompanied by high-risk exposure - interaction with a Covid-19 patient without full PPE or having a breach in PPE, e.g. tears or accidental removal – (HR 2.5, 95 % CI 1.3, 4.8). Community contact with a known Covid-19 case most strongly correlated with increased risk of infection (HR 8.1, 95 % CI 3.8, 17.5).	No	Medium
9	Karsli (2022)	Turkey	Health care workers, doctors, nurses and paramedics	Prospective cohort n=54	Wearing a mask and taking breaks < 30 min and > 30min with the mask removed	Fever, heart rate, systolic and diastolic blood pressures, fingertip oxygen saturations, $PETCO_2$ levels, self-reported headache, skin problems, quick fatigue.	There was a decrease in diastolic blood pressure between 0 and 9 hours ($p = 0.038$). Mean arterial pressure values decreased between 0-9 hours ($p = 0.024$) and 5-9 hours ($p = 0.049$). Regarding subjects working with and without breaks only $PETCO_2$ levels of those working uninterruptedly increased at the 4th hour in comparison to the beginning of shift baseline levels ($p = 0.003$).	No	Medium
10	Kelker (2021)	USA	Emergency medicine providers	Longitudinal cohort n=66	Additional work responsibilities	Burnout (Physician Work Life Study item) and wellness (Well Being Index)	Reporting having experienced additional work responsibilities this week was associated with increased risk of poor well-being (OR 4.08; 95% CI 2.14, 7.78).	No	Medium
11	Kok (2021)	Netherlands	ICUs of a university medical centre at a large	Longitudinal open cohort n=233	Working overtime, care for Covid-19 patients, moral distress	Burnout (Maslach Burnout Inventory), Moral	Working overtime (OR 2.11; 95 % CI 1.48, 3.02), being involved in diagnoses, treatment, or care of Covid-19 patients (OR 1.87; 95 % CI 1.35, 2.60) and experiencing moral distress (e.g. OR 1.29; 95%	Profession: nurses/ physicians. Working as a nurse was	Medium

#	Author	Country	Population	Study design	Exposure	Outcome	Results		Quality
			teaching hospital			stress (Moral Distress Scale)	CI 1.19, 1.40) were associated with increased odds of burnout symptoms.	strongly associated with burnout symptoms. However, nurses were less likely than physicians to develop burnout symptoms during Covid-19.	
12	Laursen (2021)	Sweden and Denmark	Healthcare workers	Prospective observational cohort study n=2153	Number of individuals encountered during workdays, on average, for the 2 weeks prior testing: 0, 1-5, 6-10, 11-20, and more than 20.	Prevalence of antibodies against SARS-CoV-2 (IgG and IgM)	The number of customer or patient contacts during a workday was the most prominent predictor for seropositivity. For example, 20 + costumers per day was associated with OR 2.9; 95% CI 1.5-5.8 in the full sample.	Staff category: Compared to office/field staff, ambulance staff had the highest risk of a positive test response. Healthcare staff also had an increased risk compared to office/field staff.	Medium
13	Li (2021)	China	Front-line nurses	Predictive study n=356	Covid unit (fever clinic, suspected ward and inpatient ward)	Post-traumatic stress disorder, PTSD (Post-traumatic stress disorder checklist)	Nurses who worked in Covid-19 inpatients wards had significantly higher odds of PTSD than those who worked in other Covid-19-related units (OR 21.9; 95% CI 5.08, 94.5)	Nurse specialists had significantly lower odds of PTSD than non-nurse specialists.	High
14	Milazzo (2020)	Italy	HCW in Milan	Longitudinal n=679	Work in Covid-19 ward or in contact with infected patient	Prevalence of antibodies against SARS-CoV-2	No statistically significant association between occupational exposure to Covid-19 and seroprevalence of SARS-CoV-2 antibodies	No	Medium

15	Morcuende (2020)	USA	Anaesthesiologists and intensive care providers	Prospective cohort study n=91	High risk occupational exposure to Covid-19 according to a list of situations.	Blood samples of Covid-19 antibodies	No difference in Covid-19 antibodies between groups with high and low occupational risk exposure to Covid-19	No	Medium
16	Reitz (2021)	USA	Healthcare providers	Prospective longitudinal survey n=402	Perceived Organizational Support, Covid-19 caseload	Burnout (10 item burnout scale from the Professional Quality instrument), General anxiety (Emotional Distress-Anxiety short form)	Higher perceived organizational support was associated with a lower risk for burnout (-0.23; 95 % CI -0.26, -0.21) and lower degree of anxiety (-0.07; 95 % CI -0.09, -0.06). Anxiety mediated the associations between perceived organizational support and burnout (p<0.001).	No	Medium
17	Sampaio (2021)	Portugal	Frontline nurses (working in healthcare settings)	Prospective cohort study n=296	Different measures of adequate PPE	Sleep quality and symptoms of depression, anxiety and stress (Depression Anxiety Stress Scale – short version)	In the multivariable model, number of gloves (1.33; $p = 0.014$) and quality of glasses/visors (-0.76; $p = 0.022$) were associated with changes in stress score. Fear to be infected and fear to infect others were significant predictors of change in depression, anxiety and stress score ($p < 0.001$).	No	Medium
18	Sikkens (2021)	Netherlands	Nurses and physicians in tertiary care	Cohort study with four assessments n=801	Self-reported Covid-19 exposure, use of PPE at work, contact with co-worker with Covid-19.	Covid-19 incidence	There was an increased risk of Covid-19 infection among healthcare workers in Covid-19 care compared with other care (HR 2.25; 95 % CI 1.17, 4.30) or no patient care (HR 3.92; 95 % CI 1.79, 8.62). Within the subgroup of healthcare workers caring for Covid-19 patients, there was an increased risk of infection among those working on Covid-19 wards (HR 3.64; 95 % CI 1.91, 6.94) and emergency departments (HR 3.29; 95 % CI 1.52, 7.14) compared with ICU.	No	Medium

19	Th'ng (2021)	Singapore	Emergency department frontline HCW	Longitudinal single-centre study n=241	Workplace support, workload, work environment,	Depression and anxiety (Depression, Anxiety, and Stress Scale)	HCWs concerned about their workload had higher odds of developing depression (OR 2.0; 95 % CI 1.2, 3.4) whereas healthcare workers who perceived better workplace support (OR 0.5; 95 % CI 0.2, 0.9) had lower odds of developing depression.	No	Medium
20	Wilson (2021)	USA	Healthcare providers	Longitudinal n=771	Moral distress	Mental health strain (Mayo Clinic Physician Well-Being Index), burnout (Mini Z burnout measure)	Moral distress increased providers' mental health strain (0.21; SE 0.03, $p < 0.01$) and burnout symptoms (0.1; SE 0.01, $p < 0.01$). The association was stronger for those seeing patients than for those who did not see patients.	No	Medium
21	Yamane (2021)	USA	Participants across care specialists	Longitudinal n=359	Covid-19 care intensity (number of dead patients).	Traumatic stress, burnout (Professional quality of life scale)	Compared with participants who cared for no Covid-19 deaths, participants who cared for Covid-19 patients who died had higher traumatic stress (OR 6.68; SE 1.30, $p < 0.001$) and burnout (OR 2.56; SE 1.22, $p = 0.036$) scores.	No	Medium
22	Yang (2022)	Taiwan	Emergency nurses	Longitudinal survey study n=150	A range of exposures, e.g. PPE, able to take breaks, communication, discrimination	Work stress, Symptoms of posttraumatic stress disorder (Post-traumatic symptom scale), Burnout (Copenhagen Burnout inventory)	Burnout mediated the association between work stress (due to primarily a heavy workload) and symptoms of post-traumatic stress disorder.	No	Medium

PPE = Personal protective equipment

BMI = Body mass index

CVD = Cardiovascular disease

$PETCO_2$ = Partial pressure of end-tidal carbon dioxide

ICU = Intensive care unit

Table 3. Overview of non-randomised studies evaluating interventions to change the work environment or health in the health care industry during the Covid-19 pandemic (research question 3).

No	Author (year)	Country	Population	Design, n=	Intervention	Comparison groups	Outcome measure	Effect/change	Subgroup comparison	Overall quality
1	Al Mohajer (2021)	USA	All healthcare personnel at one quaternary care hospital	Intervention study with pre-post design n=2486 (pre) n=4041 (post)	Implementation of universal face shield for two months in addition to already implemented face masks.	No	Covid-19 infection	A change in predicted proportion positive tests per week was seen during the intervention (from 22.9% to 2.7%, $p<.001$), and a more rapid decrease in the study group compared to the general community.	No	Medium
2	Beverly (2022)	USA	Healthcare providers with direct or indirect contact with Covid-19 patients at one hospital	Single-group intervention study with pre-post design n=102	Three minutes Tranquil Cinematic-VR simulation of a nature scene to produce relaxation and peace.	No	Perceived stress (Visual Analogue Scale 0-10)	There was a reduction in stress scores from pre- to post-intervention (mean change -2.2, $p<.001$).	No	Medium
3	Cunningham (2021)	USA	Nurses, nurse practitioners, nursing assistants at one university medical center	Single-group intervention study with pre-post design n=106	A day-long resilience retreat with contemplative practices.	No	Perceived anxiety (modified State-Trait Anxiety Inventory 14-70)	There was a decrease in anxiety scores from pre-to post-intervention (from mean 33 to 22, $p<.001$).	No	Medium
4	Liu (2021)	China	First line nurses at a Covid-19 designated hospital	Single-group intervention study with pre-post design n=140	Four weeks of daily, thirty-minute sessions of diaphragmatic breathing relaxation training.	No	Sleep quality (Pittsburgh Sleep Quality Index 0-21), anxiety (Self-	There were improvements in sleep quality (from mean 11.2 to 8.1, $p<.001$) and anxiety scores (from mean 48.8 to 43.1, $p<.001$) but not in depression scores (from mean 47.5 to 46.5, $p<.36$) from pre-to post-intervention.	No	Medium

#	Author (year)	Country	Population	Design	Intervention	Control	Outcome measure	Results		Quality
							rating Anxiety Scale 24-100) and depression (Self-rating Depression Scale 24-100)			
5	Sun (2021)	China	Nurses at tertiary care hospital	Two-group non-randomized intervention study n=66	Time management training and professional supervision in group	One with no intervention	Mental health (0-4), well-being (2.1-14.7), work stress (0-4)	The intervention group had better mental health (mean 0.5 vs 1.1, $p<.00$), better well-being (mean 5.1 vs 3.6, $p<.00$) and lower stress levels (mean 1.0 vs 2.1, $p<.00$) compared to the control group at post-intervention.	No	Medium
6	Thimmapuram (2021)	USA	Physicians and advanced providers at four hospitals	Randomised controlled trial assessing within-group changes only n=155	Heartfulness Meditation daily, (audio file with relaxation technique for meditation)	One with no intervention	Sleep Quality (Pittsburgh Sleep Quality Index 0-21)	Sleep quality improved in the intervention group (from mean 10.7 to 9.1, $p<.001$), but not in the control group.	No	Medium.
7	Yang (2021)	Taiwan	Nurses at emergency department at one hospital	Intervention study with repeated cross-sectional design n=486	Two cycles of improvement strategies: identification of stressors and subsequent actions by nurse managers	No	Work-related stress (0-10)	Overall work-related stress was reduced (from mean 8.0 to 7.9, $p<.038$) at post-intervention. Stress from PPE, information about infection control and family's worry about being infected were reduced at post-intervention.	No	Medium
8	Zaghini (2021)	Italy	Nurses at Covid-19 hospital	Intervention study with pre-post design n=322	Implementation of organizational changes targeting environment, staffing/	No	Work related stress (Health and Safety Executive Management	Work-related stress decreased (from mean 2.5 to 2.3, $p<.001$) and quality of life increased (from mean 2.9 to 3.0, $p<.003$) after implementation of the interventions and as the pandemic progressed.	No	Medium

					workload and competence		Standards Work-Related Stress Indicator Tool) and quality of life (Nursing Quality of Life scale), both 0-4			

VR = Virtual reality

PPE = Personal protective equipment

Table 4. Overview of randomised controlled trials evaluating interventions to improve work environment or health in the health care industry during the Covid-19 pandemic (research question 3).

No	Author (year)	Country	Population	Design n=	Intervention	Control groups	Outcome measure	Effect/change	Subgroup comparison	Overall quality
1	Dincer (2021)	Turkey	Nurses caring for Covid-19 patients at university hospital	RCT n=72	One 20-minute session online body/mind self-help method using skin tapping on acupoints: Emotional Freedom Techniques.	One group in a calm and tranquil environment for 15 minutes	Stress (Subjective Units of Distress scale 0-10), state anxiety (State Anxiety Scale 20-80) and burnout (Burnout scale 1-7)	The intervention group reported lower levels of stress (mean 2.8 vs 7.4 $p<.001$) anxiety (mean 32.2 vs 64.4, $p<.001$) and burnout (mean 2.5 vs 3.4, $p<.001$) at post-intervention, compared to the control group.	No	Medium
2	Fiol-DeRoque (2021)	Spain	Physicians, nurses, nurse assistants in caring for Covid-19 patients in hospital or primary healthcare	Blinded parallel-group RCT n=482	Psychoeducational, mindfulness-based mobile health intervention for 14 days.	One group with app including general recommendations about mental health care for 14 days.	A composite measure of depression, anxiety, stress based on Depression Anxiety Stress Scales (0-21)	There was no difference between groups at post-intervention. Both groups reported improvements over time: intervention group from mean 5.8 to 3.8, control group from mean 6.1 to 4.3 (reported descriptively without statistical testing)	A positive effect was seen among health care workers using psychotropic medication and among those receiving psychotherapy	High
3	Suppan (2020)	Switzerland	Prehospital personnel: paramedics and emergency care physicians	Blinded, individual-level RCT n=173	A gamified e-learning module targeting individuals' choice of type of PPE	One group module providing guidelines only	10 self-report items on correct choice of type of PPE	There was no difference between groups after the intervention. Both groups improved from pre- to post-intervention: intervention group from mean 75% to 92% correct choices, control group from mean 75% to 83% correct choices.	No difference in outcome by groups based on profession or corona virus status.	High

| 4 | Yildirim (2022) | Turkey | Nurses providing care to Covid-19 patients at university hospital | RCT n=104 | One 30-minute session of mindfulness-based breathing and music therapy | One group in a quiet and calm setting for 30 minutes | Stress (State Anxiety Inventory 20-80), Work-Related Strain Scale (18-72) and Psychological Well-Being Scale (8-56) | The intervention group reported lower levels of stress (mean 42.9 vs 50.4, $p<.01$), lower levels of work-related strain (mean 37.3 vs 40.7, $p<.03$) and higher levels of psychological well-being (mean 46.8 vs 41.2, $p<.03$) at post-intervention, compared to the control group. | No | Medium |

RCT = Randomised controlled trial
PPE = Personal protective equipment