Ann Ist Super Sanità 2021 | Vol. 57, No. 1: 7-17
www.iss.it/annali

Supplementary Materials for

The cost of caring during recent epidemics: a rapid review of risk factors, psychological manifestations, and strategies for its treatment

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Published on
Ann Ist Super Sanità 2021 | Vol. 57, No. 1: 7-17
DOI: 10.4415/ANN_21_01_02

This PDF file includes:
Table 1
Extraction form reporting relevant information from all the included articles in the review, ordered by epidemic, year, and first Author.

Table 1
Extraction form reporting relevant information from all the included articles in the review, ordered by epidemic, year, and first Author. 1a - Risk Factors; 1b - Prevalence; 1c - Prevention; 1d - Treatment.

				1a - RISK FACTORS		
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
SARS	2003	Bai [1]	Taiwan	Cross sectional	338 Hospital staff	- quarantine
SARS	2003	Chan [3]	Singapore	Cross sectional	177 Physicians and Nurses	- being single
SARS	2003	Chen [28]	Taiwan	Cross sectional	32 Physicians and 44 Nurses	- resuscitation - inadequate isolation room and PPE - changes in process of patient management
SARS	2003	Chen [4]	Taiwan	Cross sectional	131 Nurses	- being in high risk unit, especially if conscripted
SARS	2003	Cheng [29]	Hong Kong	Cross sectional	100 SARS survivors,18% were healthcare workers	- being a healthcare worker - severity of SARS symptoms - steroid dosage
SARS	2003	Chong [30]	Taiwan	Cross sectional	1257 Healthcare workers	- exposure to SARS - initial phase of the outbreak, associated with extreme vulnerability and uncertainty
SARS	2003	Chua [31]	Hong Kong	Cross sectional	79 SARS patients (39% infected healthcare workers) and 129 Healthy controls	- being infected increase the risk of mood and stress- related disorders
SARS	2003	Grace [32]	Canada	Cross sectional	193 Physicians	- working directly with SARS patients
SARS	2003	Lee [33]	Taiwan	Cross sectional	26 Nurses	- being a nurse, that includes worrying about infecting family members - feelings of uncertainty - inadequate staffing level - the virulence of the disease and inappropriate equipment - nosocomial spread - personal danger - tension between physicians and nurses interferes with teamwork
SARS	2003	Lin [8]	China	Cross sectional	92 Total: 66 staff of Emergency Department and 26 Staff of Psychiatric Ward	- working in Emergency Department led to more severe PTSD symptoms than working in a Psychiatric Ward
SARS	2003	Maunder [34]	Canada	Cross sectional	1557 Total: 115 Physicians, 430 Nurses, and the other HCWs (i.e. social workers) and others clinical and non-clinical jobs	- health fear was associated with more intensity of distress - social isolation with perceived stigma and disrupted contact with colleagues provoked stress - job stress mediated the relationship between SARS contact and acute traumatic stress
SARS	2003	Maunder [35]	Canada	Review	To outline the factors that contributed to healthcare workers' experiencing the SARS outbreak as a psychological trauma.	- contact with SARS patients - being a nurse - having children - social isolation - perceived stigmatization - being assigned to unfamiliar units - conflicts between co- workers - changes in workload, particularly increases in workload and overtime - attachment insecurity
SARS	2003	Nickell [36]	Canada	Cross sectional	2001 Emergency Department Nurses	- being a nurse - part- time employment status - lifestyle affected by SARS outbreak - wearing protective gear

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Table 1
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1a- RISK FACTORS						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
SARS	2003	Poon [9]	Hong Kong	Cross sectional	4252 Hospital staff	- uncertainty - fear of contagion and of infecting others - front- line working - discomfort from the use of protective gear - burnout
SARS	2003	Reynolds [10]	Canada	Cross sectional	1912 Quarantined individuals (27% were HCWs)	- quarantine experience - being high risk group, as healthcare workers and persons immediately affected by the disease
SARS	2003	Sim [11]	Singapore	Cross sectional	277 Total: 91 Physicians and 186 Nurses	- being married - behavioral disengagement - younger staff
SARS	2003	Styra [12]	Canada	Cross sectional	248 HCWs in high risk unit	- taking care for only 1 patient with SARS vs caring for multiple SARS patients - working in a high risk unit - level of contact with infected patients - perception of risk - depressive affect
SARS	2003	Su [13]	Taiwan	Prospective	102 Nurses in SARS unit vs Nurses in non-SARS unit	- previous history of mood disorder - perceived negative feelings towards SARS - working in SARS unit - younger age
SARS	2003	Tam [37]	Hong Kong	Cross sectional	1621 Hospital HCWs	- younger age - female gender - being a nursing professional - experience of direct care of SARS patients - poorer self- related physical health condition
SARS	2003	Tolomiczenko [38]	Canada	Cross sectional	300 Hospital' staff	- poor communications about SARS - staff burnout - false ideas about safety precautions - trouble concentrating on work - clinical role
SARS	2003	Wong [39]	Hong Kong	Cross sectional	1260 Emergency Department HCWs	- loss of control - vulnerability - fear for self- health and health of family and others - spread of the virus
SARS	2003-2004	Lu [40]	Taiwan	Cross sectional	135 Total: 24 Physicians, 49 Nurses and 54 others	- neuroticism and parental attachment, particularly maternal attachment
SARS	2003-2004	Lung [41]	Taiwan	Cross sectional	127 Total: 24 Physicians, 49 Nurses, 54 other HCWs	- neuroticism and parental attachment, particularly maternal attachment
SARS	2003, 2004	McAlonan [16]	Hong Kong	Cross sectional	266 Healthcare workers	- frontline working - contact with SARS patients
SARS	2004	Fiksenbaum [42]	Canada	Cross sectional	333 Nurses (23,4% having direct contact with SARS patients)	- contact with SARS patients - quarantine - greater levels of perceived SARS threat
SARS	2004	Lee [43]	Hong Kong	Cross sectional	63 non-Healthcare workers; 33 Healthcare workers	- being a woman appears associated with more severe anxiety problems - being a nurse is associated with poor psychological adjustment
SARS	2004	Marjanovic [44]	Canada	Cross sectional	333 Nurses	- quarantine experience - greater contact with SARS patients

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Table 1
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1a- RISK FACTORS						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
SARS	2004-2005	Lancee [17]	Canada	Cross sectional	139 Healthcare workers	- previous psychiatric history - years of health care experience - the perception of adequate training and support
SARS	2004-2005	Maunder [45]	Canada	Cross sectional	769 Total: 75% Nurses and others Hospital workers	- maladaptive coping through avoidance, hostile confrontation, and self- blame - attachment anxiety was associated with sensitivity to stress under many conditions job - conflicts, workload, and conscription to new duties were associated to job stress
SARS	2005	Pratt [46]	Canada	Cross sectional	1200 Hospital nurses	- adverse workplace environments, like numerous responsibilities - lacking proper support and feedback from supervisors
SARS	2006	Liu [47]	China	Cross sectional	549 Hospital staff	- quarantine experience was found to be predictive of a high level of depressive symptoms - pre- outbreak traumatic experience was found to be predictive of post- outbreak level of depressive symptoms
SARS	2006	Wu [48]	China	Cross sectional	549 Hospital employees	- younger age - quarantine experience - high level of exposure to SARS patients
SARS	2009	Johal [49]	Canada	Review	To summarize the psychosocial consequences of quarantine for patients, Healthcare, and other front-line workers	- quarantine experience - isolation
SARS	2018	Brooks [50]	- -	Review	To identify social and occupational factors affecting the psychological wellbeing of healthcare workers involved in SARS crisis.	- occupational role: nurse had worst outcomes - preparedness: more confidence in infection control knowledge and skills had less stress - working in high risk environments: frontline workers had poor mental health outcomes, like stress and PTSD symptoms, higher alcohol consumption, fatigue, poor sleep, stigma, burnout, prejudice, depression, anxiety - quarantine: associated with acute stress disorder, stigma, PTSD symptoms, alcohol consumption, anger, avoidance - perception of greater personal disease-related risk: associated with increased concern for personal for family health in hospital workers - social factors: 1)poor organizational support and poor sense of team spirit were associated with avoidance and anger; 2) poor family support was associated with depression, anxiety and sleep problems; 3)social isolation was associated with distress
MERS	2015	Lee [51]	Korea	Cross sectional	359 Total: 30 Physicians, 196 Nurses, 133 Others, 73 patients	- quarantine experience appears associated with higher risk for post-traumatic stress disorder symptoms

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Table 1
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1a- RISK FACTORS						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
MERS	2015	Park [52]	South Korea	Cross sectional	187 Nurses	- stigma was related to mental health directly and indirectly via stress - hardiness of nurses working in critical care units was a direct predictor of their mental health
MERS	2015	Son [21]	South Korea	Cross sectional	280 Hospital workers	- high perception of risk - close contact with patients
COVID-19	2020	Ho [53]	Singapore	Commentary	- -	- being a healthcare worker - quarantine - being female - being a student
COVID-19	2020	Lai [54]	China	Cross sectional	1257 Healthcare workers: 764 Nurses, 493 Physicians	- being a woman - having an intermediate technical title - working in front line
COVID-19	2020	Li [55]	China	Cross sectional	214 General public and 526 Nurses (234 front-line nurses and 292 non-front-line nurses)	- being married, divorced or widowed is associated with higher vicarious traumatization
COVID-19	2020	Lu [24]	China	Cross sectional	2042 Medical staff (doctors and nurses) and 257 Administrative staff (including the logistics)	- working in high risk department - worrying about being infected - shortage of PPE - being frustrated with unsatisfactory results on work - feeling lonely with being isolated from loved one
COVID-19	2020	Mo [56]	China	Cross sectional	180 Nurses	- being only child - working hours - anxiety
COVID-19	2020	Xiang [57]	China	Cross sectional	72 subjects surveyed of which 27 were medical staff	- psychiatric morbidities - quarantine experience - working with COVID- 19 patients
COVID-19	2020	Xiao [26]	China	Cross sectional	180 Medical staff	- isolation - high work intensity - work pressure - mortality wearing protective clothing every day, including hazardous materials
COVID-19	2020	Zhang [27]	China	Cross sectional	2182 Total (of which 927 medical health workers)	- having organic disease was an independent factor for insomnia, anxiety, depression, somatization, and OCD - living rural areas, being female, being in contact with risk were factors for insomnia, anxiety, OCD, depression

Table 1
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1b - PREVALENCE						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type of the study**	**Population studied**	**Main Results**
SARS	2003	Bai [1]	Taiwan	Cross sectional	338 Hospital staff	5% of participants met criteria of acute stress disorder
SARS	2003	Chan [2]	Hong Kong	Cross sectional	1470 Nurses	80.1% of nurses always/often perceived stress from the SARS epidemic 50.7% of nurses who perceived stress also reported average or poor health
SARS	2003	Chan [3]	Singapore	Cross sectional	177 Physicians and Nurses	20% of participants met criteria of PTSD

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Table 1
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1b - PREVALENCE						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type of the study**	**Population studied**	**Main Results**
SARS	2003	Chen [4]	Taiwan	Cross sectional	131 Nurses	11% of participants had stress reaction syndrome
SARS	2003	Chen [5]	Taiwan	Prospective	90 Healthcare workers and 82 Controls	role emotional, role physical, social functioning, vitality, mental health for the SARS health- workers immediately after care were lower than were those for the control group
SARS	2003	Chua [6]	Hong Kong	Cross sectional	271 Healthcare workers from SARS units and 342 healthy controls	healthcare workers were not relatively more stressed than healthy control subjects. Infection control may have protective effects in reducing healthcare workers stress
SARS	2003	Ho [7]	Hong Kong	Cross sectional	Sample 1: 82 HCWs. Sample 2: 97 HCWs recovered from SARS	healthcare workers who recovered from SARS showed a strong correlation between symptoms of PTSD and SARS fears
SARS	2003	Lin [8]	China	Cross sectional	92 Total: 66 staff of Emergency Department and 26 Staff of Psychiatric Ward	21.7% of staff of Emergency Department had PTSD symptoms than 13% of staff of Psychiatric Ward
SARS	2003	Poon [9]	Hong Kong	Cross sectional	4252 Hospital staff	anxiety levels were higher among staff exposed to patients with SARS than among staff who had not been exposed (52.6 vs 49.8)
SARS	2003	Reynolds [10]	Canada	Cross sectional	1912 Quarantined individuals (27% were HCWs)	62.2% of participants reports boredom 60.6% of participants reports isolation 58.5% of participants reports frustration
SARS	2003	Sim [11]	Singapore	Cross sectional	277 Total: 91 Physicians and 186 Nurses	20.6% of physicians reports psychiatric morbidity and posttraumatic morbidities 9.4% of nurses reports psychiatric morbidity and posttraumatic morbidities
SARS	2003	Styra [12]	Canada	Cross sectional	248 HCWs in high risk unit	- stress post trauma scores by unit was significantly different (SARS unit: 22.05; Intensive Unit: 22.07; Emergency Department: 24.16 vs comparison units: 13.77) - taking care of only one patient with SARS was more stressful than taking care of none or taking care of two or more patients with SARS
SARS	2003	Su [13]	Taiwan	Prospective	102 Nurses in SARS unit vs Nurses in non-SARS unit	- depression (38.5% vs. 3.1%) and insomnia (37% vs. 9.7%) respectively in the SARS unit nurses than the non- SARS unit nurses - symptomatic depressed cases were 27.5% (N = 28) in the SARS unit nurses vs.38,5% (N=27) in the non- SARS unit nurses - symptomatic PTSD was 33% (N = 23) for the SARS unit nurse vs 19% (N = 6) for the non- SARS unit nurse
SARS	2003	Tham [14]	Singapore	Cross sectional	HCWs in the Emergency Department: 43 Physicians and 81 Nurses	17.7% had post- event stress (more nurse vs physicians); 18.8% had psychiatric morbidity.
SARS	2003	Verma [15]	Singapore	Cross sectional	1050 HCWs: 721 general practitioners, 329 traditional Chinese medicine practitioners.	general practitioners involved in the care of SARS patients showed higher psychiatric comorbidity than traditional doctors, and it was correlated with post event trauma and stigma

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1b - PREVALENCE						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type of the study**	**Population studied**	**Main Results**
SARS	2003, 2004	McAlonan [16]	Hong Kong	Cross sectional	266 Healthcare workers	- in 2003 high- risk health care workers had elevated stress levels that were not significantly different from levels in low-risk healthcare worker control subjects - by 2004 stress levels in the high- risk group were not only higher but also significantly higher than scores among low- risk healthcare worker control subjects - in 2004 the perceived stress levels in the high- risk group were associated with higher depression, anxiety, and posttraumatic stress scores
SARS	2004-2005	Lancee [17]	Canada	Cross sectional	139 Healthcare workers	- the incidence of new episodes of major depression was 4%; - the incidence of new- onset PTSD was 2%; - the incidence of any new onset of a psychiatric disorder was 5%
SARS	2015	Gardner [18]	- -	Review	To assess the psychological or psychosocial functioning and mood status of SARS survivors.	psychotic symptoms, fear for survival, and fear of infecting others were predominated in the early stages of recovery - perceived stigmatization, reduced quality of life, and psychological/emotional distress were prominent across all stages of recovery - posttraumatic stress symptoms were also present from the early recovery stage onward, and found in high proportions of survivors even as late as 51 months post- infection
MERS	2015	Jung [19]	South Korea	Cross sectional	147 Nurses	57.1% of the nurses experienced PTSD (25.1% with full level and 32.0% with some level of PTSD)
MERS	2015	Kim [20]	South Korea	Cross sectional	215 Emergency Department nurses	- burnout is higher for nurses in Emergency Department than in nurses working in other hospital departments - job stress is the biggest influential factor of burnout - a lack of material resources is correlated with a high level of burnout - social support from one's supervisor and colleagues is found to provide a buffering effect that reduces job stress
MERS	2015	Son [21]	South Korea	Cross sectional	280 Hospital workers	- higher likelihood of PTSD in clinical staff vs non- clinical staff
COVID-19	2020	Cao [22]	China	Letter to editor	37 Medical workers	21.6% of participants had low appetite 29.7% of participants had sleeping problems
COVID-19	2020	Kang [23]	China	Cross sectional	994 Total: 183 Medical and 811 Nursing staff	36% had subthreshold MH disturbances, 34% had mild, 22.4% moderate, 6.2% severe; those with severe disturbances had accessed fewer psychological materials and psychological resources available through media- medical and nursing staff with subthreshold and mild disturbances preferred to obtain such services from media sources; staff with heavier burdens wanted to seek services directly from professionals

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1b - PREVALENCE						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type of the study**	**Population studied**	**Main Results**
COVID-19	2020	Lu [24]	China	Cross sectional	2042 Medical staff (doctors and nurses) and 257 Administrative staff (including the logistics)	70.6% of medical staff presented moderate and severe fear vs 58.4% of administrative staff group; 22.6% of medical staff showed mild to moderate anxiety and 2.9% were severe; 11.8% of the medical staff presented with mild to moderate depression, and 0.3% with severe depression
COVID-19	2020	Tan [25]	Singapore	Cross sectional	470 HCWs (of which 135 physicians, 161 nurses)	- lower anxiety (14.5%) and stress (6.6%), PTSD (7.7%) compared to SARS; - non- medical healthcare workers had higher prevalence of anxiety
COVID-19	2020	Xiao [26]	China	Cross sectional	180 Medical staff	- sleep quality of the medical staff was low
COVID-19	2020	Zhang [27]	China	Cross sectional	2182 Total (of which 927 medical health workers)	- insomnia (38.4 vs. 30.5%, $p < 0.01$), respectively medical health workers vs non- medical health workers; - anxiety (13.0% vs. 8.5%, $p < 0.01$), respectively medical health workers vs non- medical health workers; - depression (12.2 vs. 9.5%; $p< 0.04$), respectively medical health workers vs non- medical health workers; - somatization (1.6 vs. 0.4%; $p < 0.01$), respectively medical health workers vs non- medical health workers; - obsessive- compulsive symptoms (5.3 vs. 2.2%; $p < 0.01$), respectively medical health workers vs non- medical health workers

Table 1
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1c- PREVENTION						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
SARS	2003	Chan [3]	Singapore	Cross sectional	177 Physicians and Nurses	- support from supervisor with leadership - management - healthy organizational culture (peer support programme) - crisis counselling intervention
SARS	2003	Chen [58]	Taiwan	Cross sectional	116 Nurses	- series of in- service training - detailed manpower allocation - adequate protective equipment - availability of a mental health team
SARS	2003	Lee [33]	Taiwan	Cross sectional	26 Nurses	- preexisting relationship among the head psychiatry and the head emergency unit is essential in establishing a collaborative partnership during a crisis - providing timely, clear and updated information to nursing staff with regard to new handling procedures and patient numbers - psychiatric consultation to reduce stress and enhance teamwork - rapid integration of consultation psychiatrists into a task force for a crisis

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Table 1
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1c- PREVENTION						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
SARS	2003	Maunder [59]	Canada	Editorial	- -	- practical support in use of personal protection equipment - safe environment - clearly communicating risk information
SARS	2003	Maunder [60]	Canada	Qualitative	–	- clear communication of directives and disease information - leadership to maintain team cohesion - psychiatry staff have a special role to play in supporting institutional leadership during an outbreak, through the assessment of special staff and patient needs and the organization of a supportive institutional response
SARS	2003	Maunder [35]	Canada	Review	To outline the factors that contributed to healthcare workers' experiencing the SARS outbreak as a psychological trauma.	- increasing communication and interpersonal support to mitigate stress through telephone helplines - communicating risk information - providing the time and space for reflection and support - providing adequate training and adequate supplies of personal protection equipment
SARS	2003	Phua [61]	Singapore	Cross sectional	124 Emergency Department HCWs	- supportive hospital environment to educate, inform and to boost the morale of healthcare workers during the outbreak
SARS	2003	Poon [9]	Hong Kong	Cross sectional	4252 Hospital staff	- clear communication - prediction and - early identification of adverse factors in a crisis situation
SARS	2003	Reynolds [10]	Canada	Cross sectional	1912 Quarantined individuals (27% were HCWs)	Psychological counselling by telephone survey
SARS	2003	Sim [11]	Singapore	Cross sectional	277 Total: 91 Physicians and 186 Nurses	- more open communication of personal emotions or distress - supportive group - psychological support services
SARS	2003	Tam [37]	Hong Kong	Cross sectional	1621 Hospital HCWs	- counselling and psychological support
SARS	2003	Wong [39]	Hong Kong	Cross sectional	1260 Emergency Department HCWs	- psychoeducational programme in emergency preparedness training
SARS	2003, 2004	McAlonan [16]	Hong Kong	Cross sectional	266 Healthcare workers	- psychological training - flexible staffing resources - scheduled rest period
SARS	2004	Fiksenbaum [42]	Canada	Cross sectional	333 Nurses (23,4% having direct contact with SARS patients)	- organizational support system, disseminating information and offering emotional support
SARS	2004	Marjanovic [44]	Canada	Cross sectional	333 Nurses	- higher levels of vigor - organizational support - trust in equipment/infection control initiatives
SARS	2004-2005	Maunder [45]	Canada	Cross sectional	769 Total: 75% Nurses and others Hospital workers	- enhanced support and training may reduce burnout and posttraumatic stress. - Individual interventions may reduce maladaptive coping and decrease prolonged suffering

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Table 1
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1c- PREVENTION						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
SARS	2005	Hawryluck [62]	Canada	Review	To explore the Toronto critical care experience of coping in the SARS outbreak	- any disaster management plan must anticipate the isolation and need for informational, psychological and emotional support for those immediately affected, including loved ones
SARS	2006	Amaratunga [63]	Canada	Qualitative	- -	- emotional/psychological support services
SARS	2008	Maunder [64]	Canada	Review	To provide an evidence-based approach to reducing healthcare workers' distress by building resilience prior to the pandemic.	- Folkman and Greer's framework to maintaining psychological well- being - psychological first aid to facilitating resilience after trauma - organizational resilience may contribute to individual resilience by buffering workplace stressors
SARS	2009	Johal [49]	Canada	Review	To summarize the psychosocial consequences of quarantine for patients, Healthcare, and other front-line workers	- clear guidelines on how to minimize infection at home and in quarantine - providing clear and unambiguous information about the illness
SARS	2015	Gardner [18]	- -	Review	To assess the psychological or psychosocial functioning and mood status of SARS survivors.	- engaging healthcare workers in collaborative pandemic planning and organizational preparedness training - increasing emotional resilience by promoting adaptive coping - providing greater support via mentoring and peer support - identifying those at high risk and providing intervention - offering longer term support after the event to assist with residual effects
SARS	2018	Brooks [50]	- -	Review	To identify social and occupational factors affecting the psychological wellbeing of healthcare workers involved in SARS crisis.	- encouraging team cohesion - peer support training to developing coping mechanisms to manage the fear of infection or infecting - pre- crisis training to preparing employees for the potential impact of negative experiences such as isolation and discrimination
SARS	--	Aiello [65]	--	Cross sectional	1250 Hospital staff	- resilience training to maintain the health of individuals within the organization and to protect the capacity of the organization to respond to extraordinary demands
MERS	2015	Son [21]	South Korea	Cross sectional	280 Hospital workers	- resilience- building programs - debriefing sessions
MERS	2015	Park [52]	South Korea	Cross sectional	187 Nurses	- stress- reduction intervention with an educational program
COVID-19	2020	Chen [66]	China	Editorial	- -	- a psychological intervention medical team, for online courses - a psychological assistance hotline team, for supervision and solve psychological problem - a psychological intervention with group activities to release stress
COVID-19	2020	Cao [22]	China	Letter to editor	37 Medical workers	- individual dormitory - suitable shifts and get rest - lower workload - specified task division - video- chat with family and colleagues

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1c- PREVENTION						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
COVID-19	2020	Dehnavieh [67]	Iran	Letter to the editor	- -	Prevention strategies: - engage leadership - choose wise motivation - note to work- life balance - peer support - provide resources to protect employees and their mental health - build a good team - increase employee control over their work - review your achievements regular
COVID-19	2020	Ho [53]	Singapore	Commentary	- -	- identification of high risk groups - shorter working hours - regular rest periods, and - rotating shifts for those working in high- risk areas - confidence in infection- control measure
COVID-19	2020	Huang [68]	China	Letter to editor	Healthcare workers	- online screening inventory to help frontline medical staff
COVID-19	2020	Jiang [69]	China	Short communication	General population (divided into 4 levels): 1)Patients with severe symptoms of NCP, front-line medical staff, CDC researchers or administrative staff; 2) Patients with mild symptoms of NCP, close contacts, suspected patients, or patients with fever who come to hospital for treatment 3)People related to the first and second-level population, such as family members, colleagues or friends; rescuers, such as commanders, administrative staff, or volunteers 4)People in affected areas, susceptible groups, or general public	- identify high risk population and set priority
COVID-19	2020	Jun [70]	- -	Editorial	- -	provide PPE, basic self- care, reduce prolonged shift time and night shifts, ensure adequate staffing by re- allocation and postponing elective activities and calling back retired personnel/military/government funded resources, provide short and long term mental health care, encrypted screening for depression and suicidal ideation, implementation of support interventions
COVID-19	2020	Kang [71]	China	Correspondence	Healthcare workers	- shift system to allow front- line medical workers to rest and to take turns in high- pressured roles - online platforms with medical advice to share information on how to decrease the risk of transmission between the patients in medical settings

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Table 1
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1c- PREVENTION						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
COVID-19	2020	Kang [23]	China	Cross sectional	994 Total: 183 Medical and 811 Nursing staff	- shift system to allow front- line medical workers to rest and to take turns in high- pressured roles. - online platforms with medical advice to share information on how to decrease the risk of transmission between the patients in medical settings and to reduce the pressure on medical workers.
COVID-19	2020	Liang [72]	China	Cross sectional	59 Total: 23 Physicians and 36 Nurses	- reasonable resting for medical staff may help relieve stress - keeping physical and psychological health for medical staff during an epidemic
COVID-19	2020	Neto [73]		Letter to the editor	- -	- health status updates for professionals in the Intensive Care Unit - regular updates to address their sense of uncertainty and fear - psychological counseling using electronic devices and applications (such as smartphones and WeChat) - provision of emotional and behavioral responses to extraordinary stress
COVID-19	20202	Ripp [74]	USA	Invited commentary	- -	- meeting basic daily needs - enhancing communications for delivery of current, reliable, and reassuring messages - developing robust psychosocial and mental health support options
COVID-19	2020	Santarone [75]	USA	Editorial	- -	- ensuring the wellbeing of the physicians (PPE, rest, nutrition, hydration, shift <16 hours) - evaluating psychological needs (through telemedicine, video chats, online forum to make appointments) - support groups - reading materials - access to top information - education on how to support patients and supporting their families. - having backup workers like retired doctors and students, military workers
COVID-19	2020	Shanafelt [76]		Viewpoint	- -	- listening sessions with keyworkers to identify sources of anxiety and requests - delineate role of leaders: understand the sources of concern, assure HCW that their concerns are recognized, involve HCW in the conversation about strategies to adopt, encourage HCW to ask for help, legitimize the willingness to re- prioritize activities, recognize HCW efforts by expressing gratitude
COVID-19	2020	Xiang [57]	China	Cross sectional	72 subjects surveyed of which 27 were medical staff	- mental health support - psychiatric treatments - clear communication with regular updates - psychological counselling
COVID-19	2020	Xiao [26]	China	Cross sectional	180 Medical staff	- social support

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1d- TREATMENT						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
SARS	2006	Amaratunga [63]	Canada	Qualitative	- -	- group or individual counselling - pastoral/spiritual services- psychological services - programs for reintegration into daily life post pandemic - Web and telephone counseling for affected individuals and their families - post event recovery workshops to assist workers and the workplace to resume optimal productivity quickly
COVID-19	2020	Chen [66]	China	Editorial	- -	- training on psychological skills to deal with patients' anxiety, panic, and other emotional problems
COVID-19	2020	Greenberg [77]	- -	Editorial	- -	- preparing staff for the job and the associated challenges reduces the risk of mental health problems - team leaders should help staff make sense of the morally challenging decisions being made using discussions based on Schwarz rounds, which provide a forum for healthcare staff - team leaders should reach out to staff who are just "too busy" - trained peer supporter, or chaplain - mental health support
COVID-19	2020	Ho [53]	Singapore	Commentary	- -	- online psychotherapy (CBT and Mindfulness based therapy) - psychoeducation for general population - peer support for healthcare workers
COVID-19	2020	Huang [68]	China	Letter to editor	Healthcare workers	- telephone counseling - online counseling - cam- consulting services for frontline medical staff - get timely psychological support through strategies to reduce psychological stress - Psychic Hotline - online diagnosis by professional psychiatrists; - psychological training for the front-line medical (online, onsite, group) - innovative psychological interventions through short videos and online games - self- rated mental health scales for medical staff and provided suggestions based on their results - mental health handbooks to help people deal with stress and other psychological problems

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Table 1
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1d- TREATMENT						
Epidemic	**Year of study conduction**	**First Author**	**Country**	**Type**	**Population**	**Main Results**
COVID-19	2020	Jiang [69]	China	Short communication	General population (divided into 4 levels): 1)Patients with severe symptoms of NCP, front-line medical staff, CDC researchers or administrative staff; 2) Patients with mild symptoms of NCP, close contacts, suspected patients, or patients with fever who come to hospital for treatment 3)People related to the first and second-level population, such as family members, colleagues or friends; rescuers, such as commanders, administrative staff, or volunteers 4)People in affected areas, susceptible groups, or general public	- onsite services to first and second-level populations - 24/7 real- time remote (telephone and internet) psychological support to third and fourth- level populations
COVID-19	2020	Kang [71]	China	Correspondence	Healthcare workers	- psychological intervention teams which comprise four groups of health- care staff: 1)the psychosocial response team coordinates the management team's work and publicity tasks 2)the psychological technical support team formulates psychological intervention materials and rules, and provides technical guidance and supervision 3)the psychological medical team participates in clinical psychological intervention for health- care workers and patients 4) the psychological assistance hotline teams provide telephone guidance to help deal with mental health problems
COVID-19	2020	Neto [73]		Letter to the editor	- -	- psychotherapy techniques based on the stress adaptation model - use of psychotropic drugs prescribed by psychiatrists for severe psychiatric comorbidities - specialized psychiatric treatments and appropriate mental health services and facilities for patients with comorbid mental disorders

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