

Worldwide Mental Health Approaches for Medical Staff during the Epidemic of COVID-19; a Systematic Review

Faal Siahkhal Sh.¹ MSc, Bahmaei H.² MSc, Zahedian M.³ PhD, Mohaghegh Z.⁴ MSc, Askari S.^{*5} MSc, Beheshti Nasab M.⁶ MSc

¹ Department of Midwifery, Marand Branch, Islamic Azad University, Marand, Iran

² Department of Midwifery, School of Nursing and Midwifery, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

³ Department of Library, School of Nursing and Midwifery, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

⁴ Unit of Family Health, Health Deputy of Tehran University of Medical Science, Tehran, Iran

⁵ Student Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

⁶ Department of Midwifery, School of Nursing and Midwifery, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

Abstract

Aims: This paper aimed to review the solutions presented in various articles to protect mental health in medical staff during the COVID-19 epidemic in the world.

Information & Methods: In this systematic review, the Cochrane Library, Web of Science, Scopus, Embase, and PubMed databases were searched until 1 October 2020. All full-text published articles (also descriptive and observational articles but not abstracts, commentaries, and letters to the editors) that describe strategies to deal with the psychological problems of the medical staff were included without language restriction.

Findings: 14 papers (8 observational and six descriptive papers) were entered for qualitative analysis. Analysis of these studies identified a) attention to physiological needs of staff; b) staying in touch with family and friends; c) peer support; d) team support; e) emotional support; and f) leadership or organizational support to provide psychological support to medical staff.

Conclusion: To fight in the first line of epidemic prevention and control, medical staff needs a physical and mental safeguard. So, proper interventions in the prevention and treatment of psychological problems of the medical staff seem to be essential.

Keywords

Approaches [Note Found];

Mental Health [<https://www.ncbi.nlm.nih.gov/mesh/68008603>];

Medical Staff [<https://www.ncbi.nlm.nih.gov/mesh/68008503>];

Epidemic [<https://www.ncbi.nlm.nih.gov/mesh/68058872>];

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*Corresponding Author

Tel: +98 (61) 33738331

Fax: +98 (61) 33738333

Post Address: Department of Midwifery, School of Nursing and Midwifery, Ahvaz Jundishapur University of Medical Sciences, Golestan Boulevard, Ahvaz, Iran. Postal Code: 6135715794

saedehaskare@yahoo.com

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Introduction

The novel coronavirus disease (COVID-19) started in Wuhan, China, in December 2019 and was declared by the World Health Organization on January 30, 2020, as a public health emergency and global concern^[1]. Based on the experience gained from the Acute Respiratory Syndrome (SARS) epidemic in 2003, it is clear that after the initial coronavirus cases were reported, medical staff experienced significant anxiety, stress, and fear^[2, 3]. As a result of the recurrence of deaths and discomforts in patients and their families, the front-line staff is exposed to trauma on the one hand and moral and legal damage on the other, which can lead to depression, anxiety, and post-traumatic stress disorder^[4]. In addition to fears around COVID-19 exposure, shortages of personal protective equipment (PPE) or other essential equipment and the challenges of family support and child care while they work, irregular work hours, higher workloads, and new or unfamiliar clinical roles, health care workers may experience high level of anxiety, depression or other mental problems compared other staffs^[5, 6]. At the beginning of the COVID-19 epidemic, an online study found that the prevalence of depression, anxiety, insomnia, and anxiety disorders was 50.4, 44.6, 34.0, and 71.5%, respectively, among the frontline healthcare staff^[7]. Also, Durrani *et al.* found a significant negative relationship between psychological strengths and the perceived severity of COVID-19. Self-control can significantly reduce the negative impact of COVID-19 among front-line medical professionals^[8]. So, there is a clear need for immediate action for their physical and mental safeguard^[9]. Despite extensive efforts to identify the pathophysiology, clinical signs, and treatment of COVID-19, the psychological effects of this epidemic on the medical staff cannot be ignored, and support for these individuals should be considered an important part of the research process. The main priority of psychological interventions is to reduce the psychological risks of acute crises and their short and long-term consequences. Usually, this is done by increasing the ability of self-control and personal ability^[10].

Therefore, this study examines the solutions presented in various articles to protect mental health in medical staff during the COVID-19 epidemic in the world.

Information and Methods

In this systematic review, the Cochrane Library, Web of Science, Scopus, Embase, and PubMed databases were searched until 1 October 2020, by "Health Personnel", "Health Worker", "Medical Staff", "Hospital Medical Staff", "Hospital Staff", "Hospital Personnel", "Doctor", "Physician", "Nurse", "Nursing Personnel", "Mental Health", "Mental Hygiene", "Psychological Health", "Psychology", "Anxiety", "Depression", "Emotional Depression", "Depressive

Symptom", "Psychological Disorder", "Acute Stress Disorder", "Acute Traumatic Stress Disorders", "2019 CoV", "2019nCoV", "2019-nCoV", "COVID 19", "COVID-19 Infection", "New Coronavirus", "Coronavirus", "Novel Coronavirus", "2019 Novel Coronavirus", "SARS-CoV", "SARS CoV-2", "SARS-CoV-2", and "SARS-CoV-2 Infection" terms.

All full-text published articles (also descriptive and observational articles but not abstracts, commentaries, and letters to the editors) that describe strategies to deal with the psychological problems of the medical staff were included without language restriction.

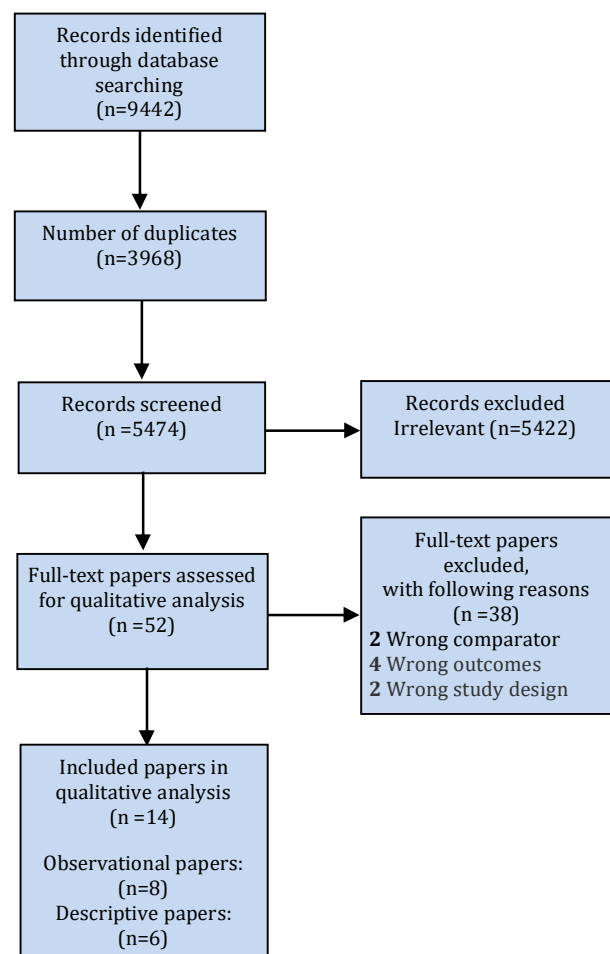


Figure 1) PRISMA flow chart of study selection

After searching the databases, authors screened titles and abstracts of search results independently. The same authors conducted the full-text screening. If there was any disagreement, it was resolved by discussion. We designed a form according to the PICO model. Two authors independently extracted information in the below fields:

- 1) Recommendations and resources for the mental health of medical staff
- 2) Enhance the medical staff's self-confidence and Self-care strategies

- 3) Leadership and organizational strategies to support health worker
- 4) Psychological interventions such as counseling

and training for coping styles and problem-solving strategies to deal with the possible psychological problems

Table 1) The characteristics of observational studies

Authors & Location	Study Type	Population	Objective	Main Findings
Abdalla, et al. 2020 (USA)	Cross-Sectional	Health Care Workers	Discussion about characterized distress, coping strategies, And effective measures to support health care providers	1. Engaging in at least one type of coping behavior to manage stress. 2. Physical activity/exercise was the most commonly endorsed behavior. 3. Engaging with faith-based religion and/or spirituality, yoga, and/or meditation. 4. Engaging with talk therapy and virtual provider support groups. 5. Need access to an individual therapist and online self-guided counseling
Albott, et al. 2020 (USA)	Cohort	Health Care Workers	A review of the possible response of medical staff to psychological stress in the COVID-19 crisis and explain preventive strategies to improve the ability to cope with stress at the personal and organizational level and describe a Psychological Resilience Strategy that can be used quickly and founded on a peer support model	1. A peer support Battle Buddy. 2. Appoint a mental health counselor to facilitate training in coping with stress, provide more support, and make necessary arrangements for referral of staff for more out-of-hospital counseling if needed.
Blake H et al. 2020 (UK)	Multi-Method: Agile Methodology	Health Care Workers	(i) Immediate preparation of a digital learning package to assist medical staff; (ii) Allows users to become more aware of psychological issues and their effects during and after a pandemic; (iii) Normalization of psychological responses to COVID-19 in medical staff; (iv) Encourage help-seeking behavior	This digital package is suitable for all specialists and medical staff, university professors and students, and in general, useful and meaningful content is designed in accordance with the needs of medical staff.
Corsi et al. 2020 (Italy)	Case-Control	Hospital Staff	Assist medical staff on the front lines of the fight against COVID-19 based on newly identified psychosocial risk factors.	1. Carefully evaluate medical staff who had mental health problems before the outbreak. 2. Provide immediate and targeted help to workers involved in the COVID-19 emergency based on the new psychosocial challenges.
Wei, et al. 2020 (China)	Case-Control	Front-Line Clinical Staff	Be aware of medical staff's psychological changes and sleep status on the front lines of the fight against the disease and provide sports interventions to relieve stress and improve their sleep status.	Medical staff who exercise on a regular schedule experience less stress and better sleep than other staff.
Xiao, et al. 2020 (China)	Cross-Sectional Observational	Medical Staff	Use SEM (Structural equation modeling) to determine the effects of social support on sleep quality and performance of medical staff in direct contact with patients.	The level of social support of medical staff is directly related to self-efficacy and sleep quality and is inversely related to stress and anxiety levels.
Zhang et al. 2020 (China)	Cross-Sectional	Medical Staff	Understand the psychological stress status of medical staff during the outbreak of COVID-19 and psychological crisis intervention the strategy that can be helpful.	1. Keep sleeping and resting as much as possible. 2. We should ensure their basic diet. 3. At work, medical staff can try every hour or two to look out of the window, find a corner, and lean backward on the wall for a while, or have a deep breath a few times. 4. Medical staff should build boundaries with work and patients, work longer hours alone without colleagues, and understand the limits they can afford. 5. Family support. 6. Colleagues who work side by side are another source of support. Medical staff should encourage, cheer, and affirm each other.
Zhou et al. 2020 (China)	Cross-Sectional: Online Survey	Front line Health Care Staff	Evaluation of general mental health and level of psychological stress and sleep quality among treatment staff in late COVID-19 outbreak in China and follow-up of mental health.	1. Physical and mental health care of the medical staff: 2. Guidelines addressed improving the work and rest hours for frontline healthcare workers: 3 and strengthening their occupational health and safety conditions: 4. Crisis psychological intervention and counseling: 5. Securing their financial status: 6. The establishment of timely telehealth psychological services and the provision: 7. The establishment of the provision of on-site mental health services for frontline healthcare staff in the isolation hospital

Findings

9442 records were identified in Scopus (n=2128), Web of Science (n=2247), Embase (n=57), PubMed (n=4790), and Cochrane Central Register of

Controlled Trials Databases (n=220) databases. After removing the duplicates (n=3968), two reviewers screened the titles and abstracts individually for possibly related papers (n=5474). Fifty-two full-text

Papers were evaluated for eligibility. Finally, 14 papers (8 observational and six descriptive papers) were entered for qualitative analysis (Figure 1). All included papers were published in 2020, and

observational studies were performed in China^[11-14], the USA^[15, 16], Italy^[17], and the UK^[18] (Table 1). Descriptive studies were done in the UK^[20, 21], the USA^[22], Italy^[23], and China^[24] (Table 2).

Table 2) The characteristics of descriptive studies

Authors	Population	Objective	Main Findings
Cheng, et al. 2020 (China)	Health Care Professionals	Provide adequate support and appropriate psychological intervention in crisis for medical staff on the front lines of the fight against the disease.	1. Quickly build a group on WeChat; 2. Training and experience in CBT (Cognitive Behavioral Therapy), MI (Motivational Interviewing), and/or Crisis Intervention by Licensed Mental Health Professionals or qualified preliminarily licensed professionals; 3. Use A model of the interdisciplinary team, while the scope is defined as short-term peer support; 4. Members signed up for shifts based on their availability. Soon after the initiation of operation, the members elected a five-person committee to oversee daily administration issues promptly; 5. The volunteer group integrated professionals from different mental health disciplines based on the belief that their work would be more effective with diversified clinical experiences and training.
Greenberg et al. 2020 (UK)	Health Care Worker	Plan about distributing limited resources evenly among patients, balancing the mental and physical needs of medical staff and patients, and aligning the demands and duties of medical staff with the needs and wants of patients and their families.	1. Healthcare managers need to take steps to protect the mental wellbeing of staff proactively. 2. Managers must be frank about the situations staff is likely to face. Staff can be supported by reinforcing teams and providing regular contact to discuss decisions and check on the wellbeing. 3. Staff must be actively monitored, supported, and, where necessary, provided with evidence-based treatments.
Lissoni, et al. 2020. (Italy)	Intensive Care Unit (ICU) Clinicians and Family Members	Describes the main psychological needs of physicians and health care providers and the families of patients with COVID-19 and suggests several psychological strategies and interventions help them.	1. Pay attention to the need for physical safety to work with a sense of individual and collective self-efficacy. 2. Pay attention to each other's needs. It means feeling part of a cohesive team with common goals. Goals can be changed, but it is important to pursue them concisely and continuously. 3. The effective strategy was the psychologist's support to the team at certain fixed times during the frenetic daily activity. 4. Pay attention to the need for decontamination and physical and emotional decompression.
Maben et al. 2020 (UK)	Nurses	Discuss and exchange information related to stressors and provide informed guidance to address medical staff's physical and mental needs during the COVID-19 pandemic.	1. Evidence-based psychological support; 2. Address your own physiological and safety needs; 3. Peer support: look after each other; 4. Team support: interventions to support team well-being; 5. Roles and needs of managers and leaders; 6. Long-term recovery
Visvanathan et al. 2020 (USA)	Frontline Clinicians	Develop support systems to help our colleagues cope with stress	1. A peer support group. 2. Focus on anxiety related to contracting COVID-19 and fear of spreading it to one's family and friends. 3. Taking extraordinary precautions to prevent this use of spiritual coping in those so inclined and encourage a focus on positive aspects of one's personal and professional life. 4. Group interventions can offer some additional healing elements that individual approaches do not. 5. Psychiatrists and other mental health professionals can help frontline health care professionals preserve their mental health while effectively helping the patients and the community.
Walton et al. 2020 (UK)	Medical Staff and Affiliated Health Care Workers	Explains the impact of the epidemic on medical staff in detail and describes some organizational, individual, and team considerations to support medical staff in this pandemic.	1. Organizational provision of psychological support; 2. Support for staff in isolation/quarantine; 3. Crisis leadership strategies; 4. Ways colleagues can support each other; 5. What can individuals do for themselves

Analysis of studies identified the following items to provide psychological support to staff.

Individuals coping behavior to manage their stress: Abdalla *et al.* reported that fifty-seven percent of HCP have acute stress, 48% have depressive symptoms, and 33% have anxiety. The most common reason for distress reported: maintaining social distancing from family, lack of control and uncertainty, and uncertainty about colleagues' COVID-19 status, shortages of personal protective equipment (PPE), testing, and lack of national guidelines regarding treatment for COVID-19, lack of national discharge guidelines for patients with COVID-19, their number of clinical hours, or disturbed sleep. Eighty percent of participants used coping behavior to manage their stress. Physical activity/exercise, engaging with faith-based religion and/or spirituality, yoga and/or meditation, talk therapy, virtual provider support groups were the most reported coping behavior among HCP^[16]. Also, Wu *et al.* showed that Medical staff who exercised according to a specific schedule reported less stress and better sleep than others^[19].

Liu *et al.* have studied the psychosocial stressors of the medical staff during the epidemic and adaptive strategies. Their most worrying was about being in danger, self-illness, family infection, needing psychological guidance, and poor sleep quality. The authors recommended strategies were self-control, family support, and social support brought in table 1^[12].

Zhou *et al.* reported that the prevalence of stress among healthcare workers was 27.5%, and poor sleep quality was 16.8%. The authors refer to the Chinese National Health Commission's guidelines for reducing perceived stress among health workers. Several health solutions include helping their families meet the needs of daily life, creating a safe and secure work environment, financing them, providing timely telehealth psychological services and mental health services for health care workers in separate hospitals^[11].

Agile Software Development Model for the psychological well-being of healthcare workers: Blake and his colleagues designed a Digital Learning Package for the psychological well-being of health providers in the UK. This design process had three stages. In stage 1, the activities related to public participation (PPI) were performed. In stage two, the content was prepared, and the technique was checked by peer review. In stage three, implementation and evaluation were performed. Components of this package include guidance on communication and social stigma reduction, peer and family support, guidance through psychological first aid (PFA), self-care strategies (such as rest, work breaks, sleep, work shifts, fatigue, behaviors), and healthy lifestyle and emotion management (moral harm, coping, guilt, sadness, fear, anxiety, depression, burnout prevention, and psychological damage).

Implementation of the program via direct email through professional networks and social media was provided free of charge to the medical staff. In evaluating this package, users were highly satisfied with it. It was reported to be easy to use, free and affordable^[18].

Set up a Psychological Resilience Intervention for managing stress: Albotte *et al.*, in their cohort study, reported the most common psychological stress included: fear, anxiety, anger about their families' safety, have an unskilled performance, sense of loneliness because of social distancing, fear of stigma and other stress response. They also mentioned organizational and personal strategies for confronting these stress responses. Suggested strategies included: Pay attention to the physiological and self-care needs of sleep, rest, nutrition, and exercise, practice self-compassion, use peer support, limit conflicting relationships with one another, limit self-efficacy activities. Increase, use personal counseling, practice self-compassion, and hope; Actively engage in telecommunications, share positive emotions, compassion, humor, and appreciation, avoid stressors, and access mental health services. The first phase, the Battle Buddy system, tried to pair health care providers based on similar professional perspectives, life experiences, and exposure to stressors to increase a sense of support and trust among colleagues. In the second stage, the APD model (Anticipate, Plan, Deter), a faculty member from the Department of Psychiatry and Behavioral Sciences was also appointed a mental health counselor to the unit or ward. Their role is to support the implementation of stress management and planning steps and be available to specific individuals who need support or personal services if stressors increase^[15].

Set up a psychological counseling system by telehealth: Corsi *et al.* did a case-control study. The main purpose is to share the experience of an occupational health group responsible for monitoring hospital conditions during the SARS-COV-2 epidemic phase. In Italy, a multidisciplinary team from the Occupational Health Department at a large hospital developed a protocol to purposefully assist COVID-19 emergency workers in maintaining hospital health based on psychosocial risk factors. As of March 25, the team has launched a dedicated email address. This dedicated email address is managed by two psychologists responsible for conducting the triage step through a telephone call to anyone who has submitted a request. Accordingly, purposeful communication strategies are used to enhance the availability of emotions during initial contact. A quick self-assessment questionnaire (STAI-Y1, STAI Y2, and BDI) collects information on the presence and severity of previous and current psychological symptoms. In the case of a patient who has a previous psychiatric diagnosis or is taking psychotherapy (psychotherapy), psychologists will refer him or her

to psychiatric counseling. In the absence of previous psychiatric illness, psychological counseling is recommended. In general, the goals of this group include (1) sharing information about the clinical condition of the staff and choosing treatment methods, (2) multidisciplinary discussions of psychologists, psychiatrists, and occupational physicians to discuss the psychological concerns of the staff to achieve a desirable integration in the clinical setting, (3) special support for newly hired staff (physicians and nurses) who were hired to integrate the workforce in the event of an outbreak. One hundred six workers (79 women and 27 men, respectively) have requested psychosocial services with mild to moderate mental distress. The results show that those requesting help are primarily female nurses who have previously faced mental health vulnerabilities. A gender-specific clinical approach is further needed^[17].

Visvanathan *et al.* Brooklyn, the only COVID-19 center in New York State, has been providing video conferencing and telephone calls sessions since late March 2020 to assist the frontline medical staff and students. Attendance at these meetings is voluntary. There are two facilitators in each group, consisting of psychiatric faculty members and assistants. For the nursing team, there is also a nursing leader who works as an assistant. These groups meet for about 40 minutes each week to encourage thoughts and feelings, and if they do not want to talk, they can reap the psychological benefits of these groups just by listening. There is also a system that secretly provides individual counseling sessions for each staff. Staff or students can send a voice or text message confidentially to a dedicated phone number or email. Senior psychiatric assistants screen messages and make contact with the appropriate specialist physician based on the availability and knowledge of each physician's area of expertise. A specialist doctor can schedule and initiate a video conference call, make a brief assessment, provide advice, and if necessary, schedule additional sessions, prescribe medication, and more. The results of this intervention showed that although there was a high level of anxiety among the staff at the beginning of the weekly groups and the main cause of their anxiety was fear of family members and social distance stress, but through group processes such as emotional relief, peer support, peer learning, and group facilitation interventions. They were helped to cope with the problems. Individuals with severe anxiety were supported confidentially through individual interventions^[22].

Peer support and crisis intervention via an application on a smartphone: The study was conducted in Wuhan, China, by Cheng *et al.*, and two online chat groups were created and managed simultaneously. Group 1 consisted of members of a volunteer group of psychologists talking to each other in the forum. Group 2 consisted of about 300

health workers from hospitals in Wuhan and surrounding cities in Hubei Province, China. The psychology team held weekly meetings to share experiences and concerns, discuss current work adjustments to meet group members' needs better, prepare plans, and typically discuss existing issues. The psychologist team was on 2-hour shifts, covering a maximum of 16 hours a day, providing online psychological support, mostly in the local time. The identities of those in the group were confidential, and attempts were made to involve HCPs in the group environment, which includes more than 300 members. Hcps were invited to a private chat if needed. HCP could also contact a psychologist for a private chat. Both individual and group psychological support was provided, and individual intervention was performed if necessary. Efforts were made to provide a loving, compassionate, and relaxing environment, with daily messages such as "We are here, we care, and we listen." Psychology training included "self-care, from Including "food and sleep hygiene", "mindfulness techniques for calming and managing emotions", "active listening, empathy", "music therapy", "sharing literature, stories and personal anecdotes" and "internal counseling" and "Problem-solving among members"^[24].

Proposed solutions in descriptive studies

1) Physiological needs of staff: Interventions aimed at improving the mental health of frontline medical staff should begin with meeting basic physical needs such as rest and safety^[23]. The physiological symptoms of stress are Palpitations, Nausea, low appetite, Chest pain, Headaches, Abdominal pains, and Insomnia^[25]. Self-care Strategies suggested in the studies include: Avoiding caffeine 8 hours before bedtime, choosing the right sleeping environment, using music or reading books, drinking hot drinks or hot water baths to create a sense of calm before going to bed, turning off the cell phone, not drinking alcohol and having a notebook in the bedside drawer to write down your daily worries, having a regular bedtime and waking hours can help you sleep better^[18]. Having a quiet and comfortable environment for resting time, providing warm and healthy food, enhancing their financial status, timely access to the guard during work shifts in dealing with the incompatible patient or family, and access to rapid corona testing for health staff are some of the physical needs of health workers that should be provided by leadership or hospital manager^[11, 21, 24].

2) Stay in touch with family and friends: Lu *et al.* (2020) showed that the frontline medical staff, more than other staff, feel lonely with being isolated from their families^[26]. Social media can be an alternative to physical contact that allows people to stay with their friends and family^[18].

3) Peer support: Walton *et al.* explain the colleague's support, such as recognizing the anxiety symptoms in colleagues, such as nightmares, difficulty sleeping, inability to stop worrying, irritability, and so on. Take

time to talk to them and be available to listen, laugh or cry with them. Be kind, consistent, and reassuring, and help them discover the cause of their distress and resolve it if possible^[24, 25]. Also, Blake *et al.* used the Psychological First Aid concept that has three principles in confronting people with distressing events: “look”, “listen” and “link”^[18].

A shared break could be the best time to talk with co-workers, monitor and check on peer needs regularly, and brainstorm for problem-solving solutions together^[21, 23].

4) Team support: Create opportunities for colleagues to meet remotely or hold a meeting for the number of employees who know each other and feel safe, hold a meeting at least once a week to resolve group members' problems and check their mental health, Check the comfort level of the restroom and get help from management to equip it if you don't have the facilities, At the end of each shift, check the health of the team members and provide more support if necessary, Find ways to feel relaxed, secure, and satisfied with new and temporary team members, respect team members and correct team flaws and increase group well-being^[21]. Blake *et al.* mentioned to 9 Tips that should be done when team working under pressure: 1) Ensure the wider health team are included; 2) Take action in times of stress; 3) Listen to the staff in the face of stressful events; 4) Use checklists and notes in the file as you work; 5) Encourage the staff to talk about their concerns; 6) Identify performance limiting factors; 7) Learn from previous experiences and share with team members; 8) Make sure there is enough staff in the team; 9) Use team justification sessions^[18].

5) Emotional support: Emotional indicators of acute stress reactions are anxiety, low mood, anger, fear, mood swings, and low self-esteem^[25]. Moral injuries, ethical problems, and guilt make these stress reactions in healthcare staff^[18]. According to Greenberg *et al.*, Some strategies that may be helpful are:

- All health care workers must be prepared for the moral dilemmas they will face during the COVID-19 epidemic.
- Choosing the right staff to work in a crisis and the challenges associated with it reduces the risk of developing mental health problems.
- Employees should not be given false assurances but a detailed assessment of what they will face.
- As the situation progresses, team leaders must help staffs become aware of ethical and challenging decisions.
- The discussion should be done by team leaders, especially when the workload is high.
- If the anxiety they experience is severe or persistent, they should be given serious support and, in more severe cases, seek professional help.

One-session psychological approaches should not be used because they may cause additional harm^[20, 23].

- Blake *et al.* advised some tips when staff feels delusional problems:

If you feel anxious, tired, and uncertain, plant both feet on the floor, take a few deep breaths, and think about your abilities and what calms you down.

- If you are feeling guilty, remember it is because you are a compassionate and caring person, and you simply want to help, remember. We are all doing our bit to fight COVID-19 no matter how small, and no matter what it is, we do

If you feel upset and sad, try to ride the waves of your emotions, express them calmly, talk about them, and be patient and kind to yourself.

- If you are feeling traumatized, connect with your loved ones more often, try not to avoid fearful situations, remember this is normal and will likely pass quite soon and limit your less healthy coping behaviors (such as excessive use of alcohol)^[18].

6) Leadership or organizational support: Leaders and health organizations need to be explorer and accessible, use team members' feedback, and have the opportunity to provide feedback in a safe environment.

- Communicate regularly with employees (by email or face-to-face contact). Recognize the needs of employees and show empathy and appreciate their hard work.

- It is necessary to monitor work events, encourage opportunities for teams to come together and support each other, and ensure individual support is available to all team members and create acceptable and accessible evacuation spaces.

- Trying to connect clinical psychologists with frontline teams to support staff through face-to-face contact or informal contacts.

- Provide strong and clear messages asking for help in the early stages and information on a wide range of confidential support options for employees exposed to trauma and their families

- Regularly monitor the psychological health of employees until at least 6 to 12 months after the peak of the epidemic of COVID-19

- Provide the necessary training on the traumatic conditions that employees may face, especially for new employees. Express truths honestly, increase coping skills.

- Meet the basic physiological and safety needs of employees, and address any deficiencies. Ensure senior executives are seriously involved in child care, illness, COVID-19 testing for staff, and other issues of concern to employees.

- Plan work in shorter shifts and support flexible programs if possible. Make sure staff have enough recovery time and family contact outside of the workplace.

To reduce the workload of employees, eliminate all non-immediate jobs.

If possible, consider the periodic rotation of nurses from high stress to low-stress performance place.

- Inexperienced nurses should be supported by more experienced colleagues.
 - Encourage nurses and team members, no matter how small the success.
- Pay attention to vulnerable employees and ensure that there are programs for the safety of people at risk of suicide or psychological disorders^[21, 23].

7) Psychological interventions

Formal counseling on grief can increase staff awareness of injuries and encourage consistent coping strategies^[18].

- The foundation of timely telehealth psychological services and procurement of workplace mental health services for frontline healthcare staff^[11].
- In the event of PTSD, interventions such as Cognitive therapy, Behavioral therapy, or Cognitive Behavioral Therapy (CBT) could be helpful with focusing on trauma, and desensitization and processing of eye movements are known to be effective^[18].
- Attention to long-term recovery after traumatic events^[21].

Discussion

This review was conducted to investigate the available approaches for the mental health of medical staff during the epidemic of COVID-19 in the world. In this study, we looked at seven strategies presented for maintaining and improving the mental health of medical staff during the epidemic of COVID-19 in various articles.

According to a systematic review and meta-analysis conducted by Pappa *et al.*, the COVID-19 pandemic can significantly affect the mental health of front-line medical personnel. Evidence shows that a significant number of medical staff suffer from mood disorders and sleep problems during this period. They need strategies for improvement mental health during the epidemic^[27].

According to an article published by Kang *et al.* in 2020, Medical and nursing staff with higher mental health problems were more interested in skills for self-rescue. They showed more urgent desires to seek help from psychotherapists and psychiatrists^[28]. In this study, we examined available solutions for the mental health of medical staff during the epidemic of COVID-19, which include these cases: Attention to physiological needs of staff, staying in touch with family and friends, peer support, team support, emotional support, and leadership or organizational support. Like our Review, the effect of social support and coping was shown by a systematic review conducted on the impact of a disaster on the mental health of health care workers. According to that study, common risk factors for mental disorders included: lack of social support, lack of proper communication, poor coping with problems, and lack of education^[29].

Protecting the mental health of healthcare professionals is a priority for policymakers.

Moreover, physically and mentally exhausted workers are more likely to make mistakes and be more susceptible to becoming infected. China has already developed a psychological intervention plan to support healthcare workers^[30].

We believe it could be useful to implement psychological support resources within the framework of a mandatory occupational health surveillance programmer, an effective and available instrument in healthcare settings. The psychological intervention plan should include two pillars: (a) providing healthcare workers with adequate information, training, and PPE, to tackle the COVID-19 emergency; and (b) enhancing with psychological support the emotional skills of healthcare workers to deal with anxiety.

This health crisis should greatly increase our understanding of mental health risk factors among the medical staff in the long run. These reports and research are important and necessary for planning prevention strategies for the future. Supporting medical staff is essential for public health programs to deal with widespread health crises and epidemics^[31]. Interventions need to promote mental well-being and strengthen prevention and response strategies by training healthcare professionals exposed to COVID-19^[31]. The following protocols have been prepared concerning the mental health of health workers:

- 1) <https://medicalxpress.com/news/2020-04-guidance-psychological-nursing-staff-COVID-.html>
- 2) <https://www.rcpsych.ac.uk/about-us/responding-to-COVID-19/responding-to-COVID-19-guidance-for-clinicians/community-and-inpatient-services/COVID-19-working-in-community-mental-health-settings>
- 3) https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af_2
- 4) <https://people.nhs.uk/guides/bereavement-support-during-COVID-19/>

Conclusion

Due to the global prevalence of COVID-19 and mortality from the disease, staff health care, at the forefront of dealing with this disease, are more likely than others to be caused by disorders Psychological and anxiety. So, proper interventions in the prevention and treatment of psychological problems of the medical staff seem to be essential.

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Authors' Contribution: Faal Siahkal Sh (First Author), Main Researcher/Methodologist/Discussion Writer (30%); Bahmaei H (Second Author), Assistant

Researcher/Statistical Analyst (10%); Zahedian M (Third Author), Assistant Researcher/Methodologist (10%); Mohaghegh Z (Fourth Author), Assistant Researcher/Discussion Writer (10%); Askari S (Fifth Author), Assistant Researcher/Methodologist (10%); Beheshti Nasab M (Sixth Author), Main Researcher/Introduction Writer/Methodologist (30%)

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