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CRISIS IN COVID-19: A REVIEW ARTICLE ON PSYCHOLOGICAL CHALLENGES FACED BY HEALTH CARE PROFESSIONALS DURING COVID-19 PANDEMIC

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ABSTRACT

It is common that, struggle with stressful situations at the workplace especially in the case of health professionals. Different studies reported stress, anxiety, depression and sleeping difficulties among professionals in health care during the Covid-19 pandemic period. The contributing factors are different but for those who are working in health care may not have the prospect to take adequate rest and sleep, associated with exceedingly elevated work pressure and deficiency of personal protection devices negatively affect mental health. These mental disturbances deleteriously affect each dimension of health among health care professionals if it is left unsupported. This affects work by reducing self-confidence, increasing absenteeism, decreasing work output and increasing staff turnover rates. It is very important that to supply PPE and a well-scheduled duty roaster for proper rest during the phases of disasters such as Covid-19. Literature reviews depicted that, adopting coping strategies like mindfulness techniques, counselling, online support, healthy lifestyle measures and exercise could address the stressful condition to a greater extend. The application of internet services, technology and social media has an important role to curb the issues in future pandemics.

KEYWORDS: Anxiety, Burn-out, Coping strategies, Covid-19, Depression, Health care professionals, Insomnia, Pandemic, Psychological resilience, Stress.

ABBREVIATIONS

HCP- Health care professionals, HCW- Health care workers, PHQ-Patient Health Questionnaire, ICU- Intensive care unit, WHO-World Health Organization, PPE-Personal protective equipment.

INTRODUCTION

In Wuhan, a city of China, a rare case of acute pneumonia was first documented on 31st December 2019. Within a limited time, the noval corona virus (Covid-19) spread from China and it has been confirmed on 6 continents and in more than 100 countries and world wide it caused different health, socio-economic and health challenges.[1,2] On January 30th 2020 WHO confirmed the 2019 Noval Corona virus as a public health emergency of international concern. According to WHO, this is affirmed as a pandemic globally affected, and formally given name for latest corona virus as Covid-19 on February 11, 2020.[2,3,4] In South Africa, a variant known as B.1.351 and in UK, another variant called as B.1.1.7 were recognized with a lots of number of mutations in the descend of 2020. Centres for Disease Control and Prevention reported that the novel variation of virus had a swift in spreading than other variants. Moreover, this has an increased risk of death compared to other varieties of viruses.[5] The Delta variant of SARS Cov-2 had given a name as B.1.617 played a huge role in the second wave of infections in India which spreads faster than alpha or B.1.1.7 varient from UK.[6] The outburst of the infection has led mental pressure on different workers and communities, particularly workers in the hospital who has straight deal with patients.[7] As of November 5, 2021 worldwide, there have been 248,467,363 Covid-19 confirmed cases including 5,027,183 deaths received from all countries reported to WHO. In India 34,333,754 confirmed Covid-19 cases and 459,873 total death were reported.[8] Since the beginning of the pandemic, at least 1 in 40 residents have been infected and 1 in 2969 residents have died from the Covid-19. May 2021 was the month with the highest average cases and deaths.[9]

The main aim of this paper is reviewing the available literature about psychological aspects during pandemic on HCPs, discusses some of the contentious factors and coping strategies adopted to tackle the situation. It gives future directions in pandemic like Covid-19.

METHODOLOGY

Databases such as Pubmed, Cochrane, Google scholar, Medline and Wiley online library were searched to find the literature related to psychological impact of health workers during

the pandemic period of Covid 19. The inclusion criteria includes the studies dealing with the Covid-19 pandemic and directly dealt with the mental health issues of the HCPs. Exclusion criteria included other non-pandemic conditions, and studies not directly dealing with the psychological aspects of the HCPs.[10] Literature search by visiting the authorized website of the WHO, CDC (Centers for Disease Control and Prevention), Government of India (GoI), Ministry of Health and Family Welfare and bibliographic search were also done. The literature search consisted articles from 2020 January to 2021 August 170 articles related to occupational stress and psychological disturbances during Covid-19 pandemic were studied and 35 studies were found to be relevant and reviewed for this article. The common mental health conditions assessed were perceived stress, burnout, anxiety, depression and insomnia.

BACKGROUND

Globally, Stress, depression and anxiety are few vital challenges faced by psychiatrists, psychologists and behaviourists.[11] Depression is considered as a common mental issue in the world among physical and mental illnesses.[12] According to American Psychiatric Association, depression is defined as a severe health condition which adversely influences how we feel, the way we think and we act.[13] According to WHO, occupational stress is the reaction of people when facing work burden and pressures which are not coordinated to the knowledge and capabilities and which test their coping skill.[14] HCPs are actively took part in the diagnosis, treatment and quality care of patients with Covid-19 are at danger of occurring mental problems and other psychological issues.[15] As the pandemic transmits many HCPs migrated to new occupational areas to offer care of patients in beset services; in which those who volunteered in strange clinical facilities were frequently exposed into the ICU or emergency unit deficient in skill and instruction. The trouble of training and supervising them fell on previously tensed health care professionals.[16,17]

Studies deal with the frequency of stress, depression, anxiety and other distress among health professionals during the pandemic period of Covid-19

Al Maqbali et al. (2020) conducted a systematic review and meta-analysis for a total of 93 studies, published between January 2020 and 2020 September. Study concluded that during the pandemic of Covid-19, one-third of nursing staffs were working in distress due to one or other psychological symptoms. 40 studies (43%) were reported prevalence of stress. The prevalence of anxiety was seen in 73 studies (37%). 62 studies (35%) were recorded depression. 18 studies were assessed for sleep disturbance with a rate of 43.[18]

Salari N et al. (2020) conducted a study aimed to review systematically and find out the frequency of stress, anxiety and depression among professionals caring for Covid-19 patients. Meta-analysis and meta-regression approaches were applied to identify the frequency of stress, anxiety and depression within HCPs. To consolidate and analyze the results recorded in the reviewed literature, the random-effects model was used. I^2 index was used to assess the heterogeneity of the study. Comprehensive Meta-Analysis software was used for the data analysis and results highlighted the frequency of stress, depression and anxiety within HCPs caring for COVID-19 patients was relatively greater. Among the physicians, prevalence of depression was much greater than nurses and other workers. Apart from that, anxiety was found to be more in hospital workers compared to other groups studied.[19]

A nationwide cross-sectional study was done by **Mathur et al (2020)** among 200 respondents by using semi-structured format along with the Adjustment disorder new module and the depression, stress anxiety, and scale. A notable number of participants were found to be suffer from mild stress (9.5%), depression (17%) and anxiety (19.5%) which they attributed to the negative professional and personal influence of this ongoing scenario. The study concluded that HCP during the pandemic are facing compounding stressors and need robust psychiatric help to adequately take care of this need.[20]

A cross-sectional survey was done by **Pandey et al. (2020)** among 404 HCWs during the first outbreak of the Covid-19 pandemic. Stress, depression and anxiety were examined with a Depression Anxiety Stress Scale-21 and associated factors were measured using structured questionnaires. It was recorded that 35.6% of participants had anxiety, 28.9% had stress and 17.0% had depression. Among HCPs, females were found 2 times more prone for having anxiety and depression than male. Compare to Doctors, nurses were found to be two times more chance to have anxiety. Laboratory workers were almost three-folds more chance to have anxiety than doctors. HCWs who have a lack or no PPE were almost three-fold more likely to have depression. HCWs working in high-risk areas had almost 2 times higher odds of having depression.[21]

Chatterjee et al. (2020) carried out a cross-sectional and observational study among doctors in West Bengal to identify the attitude, practice and psychological impact of COVID-19. An online semi-structured questionnaire was used and collected survey from 152 participants for 10 days. The results revealed that 35% frequency of depression symptoms during the COVID-19 outbreak. The stress and anxiety symptoms were reported as 39.5% and 33% for

the doctors, respectively. Depression, anxiety, and stress symptoms were recorded around 10–15%. Shockingly doctors (42.8%) had recorded one or more co-morbidities in this study.[22]

Rachana Raj et al. (2020) conducted an observational study among 300 HCPs and non-health care participants during and post lockdown period of 3 months. When analyzing the psychological factors in this study, anxiety was found in physicians, technicians, nursing staff, and non-healthcare study population as 55.65%, 48.54%, 52.34%, and 56% respectively. Depression was reported as 32.1%, 53.72%, 42.7%, and 35% for the formerly listed group of HCPs respectively. Sleeping disturbances were recorded as 47%, 38.2%, 39.4% and 43%, related mental issues in general were reported to affect 43.51%, 41.9%, 28.3%, and 45% of the physicians, nurses, technical workers, and non-medical participants. Covid-19 control is mostly affected by the interference of mental health issues faced by medical or non-medical workers.[23]

A literature search of cross-sectional studies done by **Vizheh et al. (2020)** assessed HCWs' mental well-being during the SARS-CoV-2 pandemic. NHLBI Study Quality assessment tools were used to analyze the study. Systematic search of 900 relevant articles were carried out and 11 studies were found to be eligible for the review. The least reported frequency of stress depression and anxiety among HCPs accounts 29.8%, 24.1% and 12.1%, respectively. In comparison with other HCPs, nurses, younger medical staff, female workers, health care professionals and workers in high infection areas reported more severe psychological symptoms.[24]

Studies deal with factors influencing stress perception and other psychological disturbances during pandemic period of covid-19

In period of Covid-19 pandemic, organisational risk factors include increased work demands and diminished control over the job environment and the trauma of caring for critically ill patients have been increased.[25] Subsequently, this became the important exacerbating factors affecting the mental health among HCPs. Remote working, for maintaining social distancing and being separated by relatives and family members are contributed to loneliness. Environmental or personal factors are the reason for the degree of stress and other psychological states experienced.[26]

Lai J et al. (2020) conducted a cross-sectional study for 1257 HCWs in 34 hospitals in China and collected data and measurements. Generalized Anxiety Disorder scale, 9-item Patient-Health Questionnaire, Impact of Event Scale-Revised and Insomnia Severity Index were applied to evaluate the degree of symptoms of anxiety, depression, distress and insomnia. In Wuhan, HCWs in secondary hospitals, nursing staffs, women, other frontline health care professionals, reported increased scores in 4 scales. A notable number of study participants reported depression, anxiety and sleep disturbance symptoms and more than 70% were experienced mental health distress. This study concluded that, special attention is essential for the psychological health of nurses and women who treats patients during COVID-19.[27]

Sonja C et al. (2020) performed a systematic literature review with a total of 55 studies with 2, qualitative and 53 using the quantitative methodology. Validated measurement tools were used in 50 of the quantitative studies and novel questionnaires were used in 5 studies. The study was cross wisely done in different countries and people in pandemic conditions during Covid-19 were included. Fear of the unidentified or risk of getting infected were the foremost psychological issues faced. Being a nursing staff or women had higher risk and perceived stigma from relatives and society obviously results in increased negative effects such as stress and isolation. The study concluded that greater attention is needed for psychological implications that are highly negative, possible through the contribution of psychologists, raising awareness.[28]

Barzelay et al. (**2020)** have done a study that shows the HCPs concerned more than the non-health care professionals about exposure to COVID-19 infection. Higher anxiety (22.7%) and depression (16%) among professionals were recorded. There was a gender prepossession towards female participants present which was mostly due to convenient sampling. The most common reason for the progress of anxiety was related to subjective concerns on stressors related to risk of infection to their family members.[29]

A cross-sectional analysis done by **Liang et al.(2020)** among 59 doctors and nurses posted for Covid-19 duty at Guangdong, a Chinese province by using a self-recording anxiety and depression scales. Results showed that majority among HCPs had depression symptoms. This study concluded that medical doctors age<30 years suffered from high depression scores in comparison with doctors age<30 years.[30]

Meta-analysis of 13 studies, comprised 33,062 HCPs done by **Pappa S et al. (2020)** reported that females experienced greater depression and compared to males. Anxiety was evaluated with a prevalence rate of 23.2% (12 studies)and depression (22.8%) in 10 studies. Nurses reported higher occurrence of depression and anxiety. Female participants had more personal [1.35 (1.13–1.61), <0.01] as well as job-related [1.24 (1.01–1.50), $p < 0.03$], similarly [0.96 (0.81–1.15), $p > 0.68$] pandemic associated burnout.[31]

A questionnaire survey by using Copenhagen Burnout Inventory was done by **Khasne et al. (2020)** among 2026 HCW's who care Covid-19 patients. Work-burnout was examined in personal, work, and client-related domains. The prevalence of individual burnout was 44.6% (903), work-related burn-out was only 26.9% (544), while more than half of the participants (1,069, 52.8%) had burn out related to pandemic. Higher personal and occupational burnout was found in younger respondents (21–30 years). The prevalence of personal and work-related burnout was significantly more among females. The professional doctors (1.64 times) as well as supporting workers (5 fold times) expected to experience pandemic-associated burnout. Many participants of this study had fright to deal with Covid-19 infection throughout job (1,120, 55.3%) and 1,357(66.9%) for taking infection home to family members or relatives.[32]

Studies deal with coping strategies to overcome the stress, anxiety and depression among health professionals during the pandemic situation of Covid-19

Work related stress causes an unsafe effect on nurses' health as well as on their abilities to deal with job difficulties.[33] Coping constitutes efforts to control, reduce or learn to overcome the threats that occur due to stress. In most stressful incidents, people employ both emotion-focused and problem-focused coping.[34] During this pandemic, it is crucial that to realize how the stress is and take necessary steps to build resilience in order to cope with stress, and they must know whom to approach when they need help.[35]

Özçevik et al. (2020) done a descriptive and cross-sectional study by using 3 online questionnaires among 444 HCWs to examine the anxiety level, stress and the strategies in coping they adopted during the Covid-19 period. Significant variations in the State Anxiety Inventory scale score were found and Variables such as age, gender, and few other variables associated with pandemic impacted the anxiety levels. Coping strategies of HCPs in the age group of 20–29 years chosen the vulnerable approach as a coping method but for those age 30 years or more was selected the self-confidence approach.[36]

Shechter et al. (2020) conducted a cross-sectional survey among physicians, nurses and residents/fellows advanced practice provider in a high point of patient admissions for Covid-19 at a medical centre in Newyork. Out of 657 participants, 57% had acute stress, 48% had depression, and anxiety symptoms reported as 33%. Nurses and advanced practice providers are experiencing Covid-19 related psychological problems. Coping strategies which are empirically-supported and approved resilience indicators were used by the participants. Physical activity methods or exercise were the common familiar coping behaviour which accounts as 59% and 33% were accessed a personal therapist with online individual-guided counselling also recorded.[37]

Nishi et al.(2020) conducted an online survey in Maharashtra, India by using snowball sampling to assess the psychological health and living quality among 197 HCPs. The majority of participants reported depression (92, 47%), anxiety (98, 50%), and poor quality of life (89, 45%). Depression and anxiety together were recorded as 2.37 times more among single professionals compared to married (95% CI: 1.03–4.96). There is an independent association of moderate to severe depression and anxiety with a high risk of poor quality of life. 44 (33%) professionals thought that relaxation techniques like yoga and music would deviate attention from hectic daily schedules and decrease stress. 44(33%) reported that their anxiety was reduced by the declining patient number, adequate training in guidelines of COVID-19 management, proper isolation wards, enough rest and better nutrition, and adequate supply of PPE. Media has an important role in dissemination of fright among people and causing stigmatization and stress among HCPs. Periodically Sending residents to home and offering counselling also suggested to tackle the situation.[38]

George CE et al. (2020) conducted a study among HCPs for 40 days. 42 staffs in the qualitative method and 64 participated in the quantitative survey. A majority (75%) of the staff had an experience of fear some times. In the QUAL interviews, fright of death, the guilty of disease spreading to relatives, anxiety regarding possible violence and disgrace in the slums and tiredness reported as the highlighted causes of stress among HCPs. Positive cognitive reappraisal and jointly designed and implemented adaptive interventions which include positive reframing, support from friends or colleagues, social distancing, collecting information, self-efficacy, response efficacy, existential goal identifying, value adherence and religious coping were found to be good to ensure continuity of care.[39]

According to **J. Cao et al. (2020)** suggested that, most frequently used coping mechanism was telecommunication with relatives, while a major participants reported, sharing feelings with friends also found vital.[40]

Mohindra et al. **(2020)** formed a narrative report of an unreported number of interviews also recorded that, support obtained from family and fellow workers considered as a major emotional factor for motivation among HCWs to follow their work.[41]

A qualitative study was conducted by **L. Kang et al**. **(2020)** with 994 medical as well as nurse professionals employed in Wuhan. Majority participants (36.9%) responded that they have psychological issues (mean PHQ-9:2.4), 34.4% had less difficulties(mean PHQ-9: 5.4), 22.4% (mean PHQ-9:9.0) had moderate disturbances, and severe mental trouble was recorded for 6.2% (mean PHQ-9:15.1). 36.3% of HCPs had depended on materials like books about mental health comparatively more that is 50.4% had accessed mental health sources accessible through media like web based push messages on psychological health personal-support coping methods and 17.5% of professionals took part in psychotherapy or counselling as an additional support measure.[42]

Zhang et al. (2020) carried out a study administered through an application by employing a questionnaire including demographic data and certain individual-prepared queries in association with the Covid-19 outburst. Assessed level of anxiety, sleep disturbance, depression and stress-related symptoms and regression analysis was chosen to find the association among sociodemographic variables and sleeping difficulty symptoms. Out of 1563 participants 564(36.1%) were reported sleeping difficulty symptoms as per Insomnia Severity Index (score $\geq$ 8). Lower than 25% reported that mental support from social media or news was useful.[43]

A study done by **Gupta B et al. (2020)** using a well-structured questionnaire with individual-reported responses from 368 HCPs, in India. The survey examined the level of signs and symptoms of anxiety and quality of sleep among participants based on a Generalized Anxiety Disorder (GAD-7) scale and a Sleep Quality Scale. Among 368 Professionals, 126 (34.2%) mostly were in the age group of 45-60 years, and 192 (52.2%) of participants accounts doctors. Severe anxiety identified by GAD-7 score >10 was seen among 27 (7.3%) of HCWs. Multi demographic variable analysis reported that poor sleep pattern was linked with elevated anxiety and not enough PPE. Initial detection of at-risk HCPs and execution of situation-

related improvement steps are useful to decline the chance of long-term, serious psychological sequelae and reducing present anxiety in HCPs.[44]

A qualitative study conducted by **Sun et al. (2020)** to examine the nurses' mental health practice of caring Covid-19 patients. The main attention was on coping and self-care styles. All nurses used active mental defence mechanism like mindfulness or many passive methods like distraction. 70% of participants done adjustments in life like sleeping, exercising or eating more. 65% received social support for relief but 45% used external information to regulate their thinking patterns.[45]

Kisely et al. (2020) conducted a review study which depicts greater exposure, long quarantine period, having an infected member in family, social stigma, diminished practical support and younger age were few risk factors of psychological distress. The protecting measures used were clear communication, access to proper PPE, enough relaxation and both practical and psychological support.[46]

Tahara et al. (2020) have done a cross-sectional study and collected data from 661 participants using a web-based questionnaire. 440 professionals (66.6%) reported lack of mental health (GHQ-12 $\geq$ 4). Females, low levels of communication with friends and more anxiety were connected with poorer mental health. Contrastingly, good health status, great job satisfaction, and elevated fulfilment from new activities were associated with defeating psychological problem. The strategy adopted by most participants was escape-avoidance and participants with inadequate psychological health were more prone to get social support. The study concluded that work pleasure and initiating a novel activity were the possible way to tackle psychological deterioration.[47]

Organizations and individuals can initiate steps to extend cognitive, emotional and interpersonal abilities to improve coping strategies and arrange a personal and organizational resilience plan.[48]

Albott et al. (2020) has shortened the psychological stress responsiveness to the Covid-19 situation and strategies to foster personal and organizational resilience, exhibit in the following table.[49]

Table 1: Personal and organizational strategies for stress responses.

Regular Covid -19 stress responses	Personal	Organizational
Physical or cognitive / emotional tiredness	Physiological health and self-care practice for sleep, rest, nutrition and physical activity	Communicate dynamically to HCWs about the usefulness of proper rest and self-care
Fear, anxiety and anger related to risk to safety in personal, family and fellow-workers (spreading covid-19 infection)	Practice self-compassion Knock into sense of purpose, altruism and kindness for others	Offer apparent guidance/ procedures about PPE, practical problems, avoid spreading of the infection etc
Fear, anxiety and sense of shortage regarding being redeployed to execute external perceived skills	Anticipate or plan for the challenges Utilize peer support	Recognize the scope of the pandemic situation and provide possible estimates of redeployment need
Panic, hyper arousal and sense of loss of control	Get the most out of self efficacy actions wherever needed Foster personalized resilience plan for management of hyper arousal Restrict media and intoxicants Peer support and try to find for counselling	Acknowledge uncertainty and modification Foster hope and limit communications that contradict one another
Grief, depression and disruption in sense of professional identity	Training of self-compassion and anticipation Enthusiastically involve in optimistic assertive control where needed Support from peer groups	Acknowledge losses Avoid using the term nonessential
Isolation and loneliness from social distancing	Dynamically hold in remote connection with others Foster collective efficacy, witness and personal stories Share constructive emotions of altruism, compassion, humour and gratitude	Encourage collective efficacy
Struggle with mental health support and fear of dishonour or stigma	Support from peer groups and encourage them whenever experiencing elevated stress to get professional support	Acknowledge emphasize use of prompt interventions normalcy of depressing emotions, and fight stigma
Post-stress reactions and professional burnout	Support from friends Obtain support from professionals	Provide organizational support and continue provision for PPE.

Huang L et al. (2020) conducted a study through an online survey in Anhui Province. The results showed that females had more severity of anxiety and fear compared to men. Participants from urban area recorded these symptoms more than participants from rural zones. On the other hand, participants from rural area had more sadness than the urban area. If the Covid-19 area is nearer to the participants, the anxiety and anger were found to be stronger. Nursing professionals and women were more practical in applying problem-focused

coping steps compared to nursing students and men respectively. After regression analysis, the problem-coping method was reported the widespread factor influencing for anxiety among nursing students and nurses.[50]

Rathore et al. (2020) have done a cross-sectional and descriptive study among 100 HCWs who were posted for caring Covid-19 patients in a tertiary hospital. 65% of the participants reported communication and attachment with family and friends as the driven force for motivation. 48% participants kept a healthy balance between their personal and professional lives 62% participants found enjoyment in music and TV, 41% followed exercise and meditation, while 26% selected reading. 43% found happiness when they receive appreciation for work. 59% participants responded that the feeling of pride as they engage in a noble profession. 73% responded positive team approach in management was helpful. Similarly, 73 % of participants scheduled duty time and proper interval between duties to keep away burnout. Compassion and empathy from good leadership to escalate the morale and confidence of HCPs is very significant and was acceptable by 44% of participants. 7% wished to get professional support from a counsellor or psychiatrist whereas majority were managed well the situation by themselves.[51]

Divya et al. (2020) had done a study to explore the effect of Sudarshan Kriya Yoga (SKY) on the well-being of HCPs during the Covid-19 pandemic. The yoga (SKY) was taught to all participants through an online breath and meditation workshop for a 4 days duration and measured effects interrelated to resilience, anxiety, depression, satisfaction of life, and sleep quality. A total of 92 participants were integrated in the study who receives training for yoga. A marked decline was seen in the levels of anxiety, depression and stress and an enhancement in satisfaction of life, resilience and their sleep also experienced.[52]

Zhang et.al (2021) did a study on physical relaxation for occupational stress in healthcare workers. By searching databases of 15 trials including 688 HCPs, meta-analysis was done which shows that physical relaxation methods helped to reduce occupational stress in Covid 19 pandemic. Massage therapy and yoga were found to be fine for deducting stress.[53]

Studies deal with preventive methods adopted among health care workers during Covid-19 pandemic

More than a year, HCPs have committed their lives to fight against this deadly virus.[54] They have been fighting tooth and nail to bring us out of this dreadful situation. A lot of studies

have been conducted to study the preventive measures taken by HCPs to fight against stressful situation during pandemic.

According to **Muhammad Irfan et al (2020)** formulating psychological interventions for modifying psychological resilience and mental health have supreme importance during Covid-19 and comparable situations in the period to come. Following are few measures that can be taken by HCPs to tackle with the struggleful situation in workplace.

Table 2: Preventing Measures to reduce stress at workplace.

Measures for stress at workplace
1. Being self-aware: – Self-care starts with self-awareness. Its better to understand ourselves in order to maintain psychological wellness
2. Connect and communicate:– Maintain bond and communicate others who are around both at workplace and home
3. Develop a routine living: – Proper sleep/diet plan and regular physical activity help to foster routine living
4. Spiritual Well-being – Religion, mindfulness, and yoga are the key for spiritual well- being
5. Modify existing coping skills:- Coping strategies enable to tackle psychological issues
6. Psycho therapies or techniques – CBT helps to change viewpoint. Rather than focus on the number of casualties considering the number of people who are recovering from COVID-19

In addition to that, for developing resilience, it is indeed to combat anxiety, depression, somatisation, and incapacitation.[55]

Wakgari et al (2021) conducted a study to examine the perception of risk and defensive practice techniques of Covid-19 among HCPs. Respondents who had previously given clinical care to SARS, Cholera, Ebola and patients had significant lack of concern about Covid-19 hike than participants (β = -1.38, $P<0.001$) who are not exposed to. The findings showed that participant's common way of prevention steps, increased levels of perceived risk and worry about the Covid-19 crisis.[56]

Bianca Princeton et al (2020) conducted a study to evaluate the awareness on preventive methods adopted by HCPs caring Covid-19 patients among dental students. 90% of the participants have reported that HCPs must wash their hands frequently, cover their nose and mouth, and maintain safe social distancing from others in order to prevent the virus from affecting them. 63% of the participants were well-known with PPE. Majority of participants presume that HCPs are given enough safety measures while providing treatment to a patient with corona virus.[57]

A descriptive cross-sectional study conducted by **Shrestha et al (2021)** among the community health workers of various provinces of Nepal. 380 (95.2%) participants thought that wearing PPE will decline the risk of affecting Covid-19 infection, 80.5% (321) participants responded that Covid-19 will efficiently controlled and staff get excellent support and had high level of knowledge. HCWs had knowledge about Covid-19 and are proactively following the preventive or safety measures to reduce the spread of infection but some have lack in positive attitude. Hence, the constantly updated educational programs related to Covid-19 would definitely helps to improve knowledge and attitude.[58]

A study done by **Albeladi F (2021)** aimed to check the adherence level of HCWs to the preventive measures against Covid-19 in Saudi Arabia. Out of total 214 HCWs the level of overall adherence to mask use was 82%. HCWs were committed to wear gloves, gowns, and goggles with a percentage of 95%, 85%, and 68%, respectively. The findings revealed that HCWs in Saudi Arabia had a satisfactory level of adherence to COVID-19 safety precautions during the pandemic situation.[59]

DISCUSSION

The current review of the literature highlighted the psychological effect of the pandemic on HCPs. There are evident experiences recording that the working conditions during pandemic negatively affects almost all HCWs. The increase of work-related pressure, duty rotation, new tasks, and more assignments during crisis or disasters such as this pandemic are reasons for job related stress if not handled properly by hospitals.[60] Though few are following coping methods to overcome the mental disturbances, certain motivational and morale-boosting programmes of the public and HCPs are indeed and should proceed actively to get rid of stress and anxiety.

CONCLUSION

To sum up, hoping that the Covid-19 pandemic will bring on a redefinition to the value of vital HCWs with recognition of their contribution, proper education, protection, and compensation. Make sure that our frontline warriors are supported, protected, motivated and well equipped to deliver safe and sound health care always not only during pandemic like Covid-19 which enable them to deliver quality and effective care to the patients. Moreover proactive organizational approaches could be more effective but less stigmatizing, and generating evidence on the efficacy of interventions or strategies are required to maintain

resilience.[61] More research, especially from developing countries like India, required to design interventions appropriate for the need for HCPs.

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