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1	RAPID POLICY BRIEF NUMBER: 015-01
2	RESEARCH DOMAIN: COVID-19 and Healthcare Providers
3	TITLE: Psychological toll of COVID-19 among healthcare provider
4	DATE OF PUBLICATION: 26/03/2021
5	<p>BACKGROUND</p> <p>As the number of COVID-19 cases continues to show a rapid increase, frontline health workers are playing a critical role in responding and containing the pandemic. This is triggering an intense healthcare response with thousands of healthcare workers (HCW) caring for those affected by the virus. Potentially, large scale epidemics usually pose various challenges to individuals of all ages and cultures, but the emotional stress experienced by frontline HCWs can be enduring and severe [1-3]</p> <p>Furthermore, there were unparalleled tasks caused by the rapid transmission rate of COVID-19 which HCWs may not have been adequately equipped to deal with both from the psychological and professional viewpoint. This places HCWs as a particularly vulnerable group due to the high risk of infection, increased work stress, and fear of spreading to their families [4].</p> <p>The psychological strain of COVID-19 can be gleaned from experiences of the severe acute respiratory syndrome (SARS) and novel influenza A (H1N1), which means that protecting the psychological well-being of healthcare workers is essential for the long term capacity of the health workforce [5, 6]</p>
6	<p>SEARCH STRATEGY/ RESEARCH METHODS</p> <p>A systematic search of the following databases was conducted to obtain peer review literature published between December 01, 2019, and February 05, 2021, PUBMED and WHO COVID-19. Using a combination of search terms - (COVID-19 or SARS-CoV-2) and (healthcare workers or health workers or health workers or frontline health workers or health care providers or health providers or frontline workers) and (psychology or burnout or burnt-out or fear or anxiety or stigma or stress or burden or distress or panic or nervous or tense or uneasy or worry or concern or pressure or trauma). Also, we searched the reference list of potentially eligible studies and related reviews obtained from the three databases. We included studies incorporating various study designs, with published data generated from the African region in English. Studies that reported measured impact of COVID-19 on healthcare providers based on infection rate and the psychological impact of general pandemic or epidemic not specific to COVID-19 were excluded. The search yielded 6,512 studies in PUBMED and 1007 in the WHO COVID-19 databases. Due to the time frame required to complete this review, only the output from the WHO COVID-19 database was used for this policy brief.</p> <p>After screening and removal of duplicates, 34 studies met the inclusion criteria. Due to the results' heterogeneity, we present a descriptive analysis of the findings from different studies.</p>
7	<p>SUMMARY OF GLOBALLY PUBLISHED LITERATURE RELATED TO THE SUBJECT</p> <p>Eight studies were identified as reviews, with one focused on the low and middle-income country (LMIC), 26 were observational studies. We summarize these below in two categories. The first category of studies contains the literature with empirical evidence, while the second is a summary of the observational studies.</p>

Health care workers (HCWs), irrespective of geographical location, experienced high levels of depression, insomnia, and distress, fear, psychological distress, burnout, anxiety features, post-traumatic stress disorder features, somatization, and stigmatization feeling [7-9]. Most of the reviews reported female HCWs including nurses confer greater risk, even though most of the studies had more females than males enrolled [7, 10]. Increased risk of acquiring stress-related disorders or trauma, anxiety, fear of the unknown, or becoming infected were at the forefront of the psychological challenges HCWs [10]. Providing medical care during a global pandemic heightens stress and generates fear, as HCWs are exposed to high infection risks, death, more dilemmas in deciding who qualifies for intensive care, and excessive workloads [10]. A systematic review by Luo et al, compared the psychological impact of COVID-19 on medical staff and the general population, and it was higher-than-pooled prevalence among HCWs and the general population [11]. Common risk factors included female gender, being nurses, lower socioeconomic status, presence of a high risk for contracting COVID-19, social isolation and spending more time watching COVID-19 related news. These findings are comparable to previous studies conducted in epidemic settings. (Reference: -Mauder et al, 2003. The immediate psychological and occupational impact of 2003 SARS outbreak in a teaching hospital. CMAJ [11]. Comparing the incidences of psychological issues during COVID-19 between HCWs and non-healthcare workers (NHCWs) revealed a higher incidence of insomnia among HCWs [12]. Further review of studies confirms, health professionals, regardless of age, showed a high prevalence of mental disorders, anxiety, and depression scores are significantly high, and teams of HCWs working closer to infected patients showed a higher prevalence of mental disorder [13].

The second category of studies is entirely observational studies in different clinical settings across various geographic locations. A study in the United Kingdom using validated screening tools for depression (patient health questionnaire, PHQ-9), anxiety (generalized anxiety disorder scale (GAD-7), and post-traumatic stress disorder (Impact of Event Scale-Revised, IES-R) administered questionnaires to intensive care workers, which revealed that the mean IES-R score of 23.0 as compared with 8.0 which was documented for HCWs generally [14, 15]. This implies that intensive care workers' psychological well-being has been adversely affected by the pandemic, resulting in anxiety, fear, depression, and sleep disorders [15, 16]. The measurement of the psychological impact amongst HCWs should therefore be categorized and measured in degrees. Measuring psychological distress (depression, anxiety, acute and post-traumatic stress disorder (PTSD) as dictated by depression, anxiety and stress scale (DASS-21) revealed an independent measure of the three parameters being measured, worse outcomes were reported amongst HCWs with underlying medical ailments [17-20]. Nurses and paramedics were more prone to insomnia, due to a poorer situational awareness and insufficient knowledge, when compared to doctors [21]. In a study by Ceri et al, utilizing the DASS-21 and the Psychological well-being scale to compare use of DASS-21 to compare stress between healthcare professional and non-healthcare professional during the COVID-19 pandemic in Turkey, showed that being a frontline worker for COVID-19, nurses, Female gender, single marital status, insufficient training for protection, lack of confidence in protection measures, and those who are away from their family for over a week during the pandemic were at greater risk of depression and stress [22-29]. Three studies revealed that pressure from family to quit the job, lack of proper protective equipment that raises the fear of becoming infected, increased anxiety amongst doctors and nurses involved in the direct management of COVID-19 patients [30-32]. Overall, professionals working with COVID-19

	<p>patients are at higher risk of stress, burnout, secondary trauma, depression, anxiety, and health professionals working in the most affected areas are at significant risk of stress, burnout, and low compassion satisfaction [33-38]</p> <p>The probability of anxiety and depression of frontline medical staff in emergency departments [39], respiratory departments, intensive care unit and infection departments is twice as high as that of nonclinical medical staff [40, 41]</p>
<p>heal8</p>	<p>SUMMARY OF AFRICA-SPECIFIC LITERATURE ON THE SUBJECT</p> <p>No study was specific to Africa.</p>
<p>9</p>	<p>POLICY FINDINGS</p> <p>All the studies included expressed significant concerns regarding healthcare workers' psychosocial well-being and possible preventive strategies, with the novel coronavirus having a substantial impact on the mental health of HCWs; this should become a priority for public health strategies.</p> <p>Investing in preventing psychological, family, social and physical support and guaranteeing reasonable work conditions and others in order to protect HCWs from the long-lasting psychological effect of the COVID-19 pandemic is very critical. Some interventions are:</p> <ul style="list-style-type: none"> • The mechanism for mental health support could reduce mortality and morbidity amongst HCWs. • The need for more significant psychosocial support and more explicit dissemination of disease-related information. • Changes need to start at the policy makers' level to offer an enhanced variety of supports to HCWs who play a critical role during large-scale disease outbreaks. • Psychological impacts are mostly negative and require keen attention to be mitigated, potentially through raised awareness, psychologists' involvement, and better education. Long-term follow-up is also required. • Organizational measures for frontline institutions such as periodical monitoring or inclusion of psychologists specialized in crisis-management to prevent negative symptoms and provide timely support. • Strengthen prevention and response strategies by providing immediate implementation of interventions and training health care professionals in mental aid and crisis management
<p>10</p>	<p>ONGOING RESEARCH IN THE AFRICAN REGION</p> <p>None was identified</p>
<p>11</p>	<p>AFRO RECOMMENDATIONS FOR FURTHER RESEARCH</p> <p>There is enormous evidence of paucity in the region. The burden on frontline health workers may be especially severe given the existing resource constraints, understaffed and underfunded health facilities.</p> <ul style="list-style-type: none"> • Investigations into how to sustain this workforce and best prevent burnout should be prioritized. • Studies focusing on frontline workers such as CHWs (representing the essential workforce for primary care in this region) during and after containment of COVID-19 will be needed [42].

- Evaluate the efficacies of digital resources in terms of both their short and long term impact on CHWs [42]
- Research focusing on the psychological impact in the African context is greatly encouraged.

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REFERENCES

1. Tam, C.W., et al., *Severe acute respiratory syndrome (SARS) in Hong Kong in 2003: stress and psychological impact among frontline healthcare workers*. *Psychological medicine*, 2004. **34**(7): p. 1197.
2. Maunder, R.G., et al., *Factors associated with the psychological impact of severe acute respiratory syndrome on nurses and other hospital workers in Toronto*. *Psychosomatic medicine*, 2004. **66**(6): p. 938-942.
3. Lancee, W.J., R.G. Maunder, and D.S. Goldbloom, *Prevalence of psychiatric disorders among Toronto hospital workers one to two years after the SARS outbreak*. *Psychiatric services*, 2008. **59**(1): p. 91-95.
4. Grover, S., et al., *Why all COVID-19 hospitals should have mental health professionals: The importance of mental health in a worldwide crisis!* *Asian journal of psychiatry*, 2020. **51**: p. 102147.
5. Chong, M.-Y., et al., *Psychological impact of severe acute respiratory syndrome on health workers in a tertiary hospital*. *The British Journal of Psychiatry*, 2004. **185**(2): p. 127-133.
6. Goulia, P., et al., *General hospital staff worries, perceived sufficiency of information and associated psychological distress during the A/H1N1 influenza pandemic*. *BMC infectious diseases*, 2010. **10**(1): p. 1-11.
7. Shaukat, N., D.M. Ali, and J. Razzak, *Physical and mental health impacts of COVID-19 on healthcare workers: A scoping review*. *International Journal of Emergency Medicine*, 2020. **13**(1): p. 1-8.
8. Barello, S., et al., *The psychosocial impact of flu influenza pandemics on healthcare workers and lessons learnt for the COVID-19 emergency: a rapid review*. *International journal of public health*, 2020: p. 1-12.
9. de Pablo, G.S., et al., *Impact of coronavirus syndromes on physical and mental health of health care workers: Systematic review and meta-analysis*. *Journal of affective disorders*, 2020.
10. Cabarkapa, S., et al., *The psychological impact of COVID-19 and other viral epidemics on frontline healthcare workers and ways to address it: A rapid systematic review*. *Brain, behavior, & immunity-health*, 2020: p. 100144.
11. Luo, M., et al., *The psychological and mental impact of coronavirus disease 2019 (COVID-19) on medical staff and general public—A systematic review and meta-analysis*. *Psychiatry research*, 2020: p. 113190.
12. Sheraton, M., et al., *Psychological effects of the COVID 19 pandemic on healthcare workers globally: A systematic review*. *Psychiatry research*, 2020. **292**: p. 113360.
13. da Silva, F.C.T. and M.L.R. Neto, *Psychological effects caused by the COVID-19 pandemic in health professionals: a systematic review with meta-analysis*. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 2020: p. 110062.
14. Dykes, N., O. Johnson, and P. Bamford, *Assessing the psychological impact of COVID-19 on intensive care workers: A single-centre cross-sectional UK-based study*. *Journal of the Intensive Care Society*: p. 1751143720983182.
15. Saracoglu, K.T., et al., *The psychological impact of Covid-19 disease is more severe on Intensive Care Unit healthcare providers: a cross-sectional study*. *Clinical Psychopharmacology and Neuroscience*, 2020. **18**(4): p. 607-615.

16. Ma, Y., R. Rosenheck, and H. He, *Psychological stress among health care professionals during the 2019 novel coronavirus disease Outbreak: Cases from online consulting customers*. Intensive and Critical Care Nursing, 2020. **61**: p. 102905.
17. Ali, S., et al., *Psychological impact of the COVID-19 pandemic on healthcare workers at acute hospital settings in the South-East of Ireland: an observational cohort multicentre study*. BMJ open, 2020. **10**(12): p. e042930.
18. Surrati, A.M.Q., F.M.A. Mansuri, and A.A.A. Alihabi, *Psychological impact of the COVID-19 pandemic on health care workers*. Journal of Taibah University Medical Sciences, 2020. **15**(6): p. 536-543.
19. Si, M.-Y., et al., *Psychological impact of COVID-19 on medical care workers in China*. Infectious diseases of poverty, 2020. **9**(1): p. 1-13.
20. Rodríguez-Rey, R., H. Garrido-Hernansaiz, and S. Collado, *Psychological impact of COVID-19 in Spain: Early data report*. Psychological Trauma: Theory, Research, Practice, and Policy, 2020. **12**(5): p. 550.
21. Wasim, T., et al., *Effect of COVID-19 pandemic on mental well-being of healthcare workers in tertiary care hospital*. Annals of King Edward Medical University, 2020. **26**(Special Issue): p. 140-144.
22. Ceri, V. and I. Cicek, *Psychological well-being, depression and stress during COVID-19 pandemic in Turkey: a comparative study of healthcare professionals and non-healthcare professionals*. Psychology, Health & Medicine, 2021. **26**(1): p. 85-97.
23. Rodríguez-Rey, R., H. Garrido-Hernansaiz, and N. Bueno-Guerra, *Working in the Times of COVID-19. Psychological Impact of the Pandemic in Frontline Workers in Spain*. International journal of environmental research and public health, 2020. **17**(21): p. 8149.
24. Wang, Y., et al., *Acute psychological effects of Coronavirus Disease 2019 outbreak among healthcare workers in China: a cross-sectional study*. Translational psychiatry, 2020. **10**(1): p. 1-10.
25. Yildirim, T.T., et al., *Psychological Status of Healthcare Workers during the Covid-19 Pandemic*. Age, 2020. **20**(30): p. 31-40.
26. Erquicia, J., et al., *Emotional impact of the Covid-19 pandemic on healthcare workers in one of the most important infection outbreaks in Europe*. Medicina Clínica (English Edition), 2020. **155**(10): p. 434-440.
27. Zerbini, G., et al., *Psychosocial burden of healthcare professionals in times of COVID-19—a survey conducted at the University Hospital Augsburg*. GMS German Medical Science, 2020. **18**.
28. Xiao, X., et al., *Psychological impact of healthcare workers in China during COVID-19 pneumonia epidemic: A multi-center cross-sectional survey investigation*. Journal of affective disorders, 2020. **274**: p. 405-410.
29. Tan, B.Y., et al., *Psychological impact of the COVID-19 pandemic on health care workers in Singapore*. Annals of internal medicine, 2020. **173**(4): p. 317-320.
30. MUNIR, F., *COVID-19 Induced Anxiety among Health Care Professionals*.
31. Chauhan, H., *TCT CONNECT-219 Psychosocial Impact of COVID-19: Insights From a Cohort of Health Care Workers in the Cardiac Intensive Care Unit of a Tertiary Care Hospital in India*. Journal of the American College of Cardiology, 2020. **76**(17 Supplement S): p. B94-B95.
32. Temsah, M.-H., et al., *The psychological impact of COVID-19 pandemic on health care workers in a MERS-CoV endemic country*. Journal of infection and public health, 2020. **13**(6): p. 877-882.
33. Trumello, C., et al., *Psychological adjustment of healthcare workers in Italy during the COVID-19 pandemic: Differences in stress, anxiety, depression, burnout, secondary trauma, and compassion satisfaction between Frontline and Non-Frontline Professionals*. International journal of environmental research and public health, 2020. **17**(22): p. 8358.

34. Al Mahiyari, N., A. Badahdah, and F. Khamis, *The psychological impacts of COVID-19: a study of frontline physicians and nurses in the Arab world*. Irish journal of psychological medicine, 2020: p. 1-6.
35. Raj, R., et al., *Psychological impact of the COVID-19 pandemic on healthcare workers in India: An observational study*. Journal of Family Medicine and Primary Care, 2020. **9**(12): p. 5921.
36. Lasalvia, A., et al., *Psychological impact of COVID-19 pandemic on healthcare workers in a highly burdened area of north-east Italy*. Epidemiology and psychiatric sciences, 2021. **30**.
37. Li, Q., et al., *The Psychological Health Status of Healthcare Workers During the COVID-19 Outbreak: A Cross-Sectional Survey Study in Guangdong, China*. Frontiers in Public Health, 2020. **8**: p. 572.
38. Sun, D., et al., *Psychological impact of 2019 novel coronavirus (2019-nCoV) outbreak in health workers in China*. Epidemiology & Infection, 2020. **148**.
39. Pothiawala, S., *Psychological impact of the COVID-19 on health care workers in the emergency department*. Frontiers in Emergency Medicine, 2020. **4**(2s): p. e58-e58.
40. Wang, S., et al., *Psychological influence of Coronavirus disease 2019 (COVID-19) pandemic on the general public, medical workers and patients with mental disorders and its countermeasures*. Psychosomatics, 2020.
41. Jabeen, Z., et al., *Psychological Impact of COVID-19 Pandemic on Health Care Workers: A Cross Sectional Study*. Biomedica, 2020. **36**.
42. Deng, D. and J.A. Naslund, *Psychological Impact of COVID-19 Pandemic on Frontline Health Workers in Low-and Middle-Income Countries*. Harvard public health review (Cambridge, Mass.), 2020. **28**.

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