

Prevalence of Mental Health Problems and its associated factors among Healthcare Workers

Oladosu Olajumoke. A.¹; Ala Oluwapelumi A.¹

600 level Medical Student, University of Ibadan, Ibadan (at time of writing).

ABSTRACT

The medical profession is a very tedious and demanding occupation. Mental health conditions have been found to be higher among health care professionals than those in other fields which even became more marked after the most recent pandemic. This paper aims to evaluate the prevalence of these mental health problems among health care workers, their propagating factors, and the importance of knowledge of these factors. A literature review of texts related to this topic over the last ten years was done. The reviews included cross-sectional studies and systematic reviews done in Nigeria and worldwide. We found that a significant proportion of healthcare workers suffer from mental disorders, relative to the general population. The commonest problems seen among HCWs were Post-traumatic stress disorder (PTSD) (21.7%), Anxiety disorder (16.1%), Major Depressive Disorder (MDD) (13.4%), and Acute stress disorder (7.4%). We conclude that mental health problems are not only rampant in the general population, but they tend to be commoner among HCWs. However, compared to the general population, HCWs are less likely to reach out for help, exacerbating the burden of the disease.

Correspondence to: jumokeaoladosu@gmail.com; +234 912 094 2642

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INTRODUCTION

It goes without saying that the medical profession is tedious and demanding which may partly explain why mental health problems are commoner amongst doctors and other healthcare professionals than among other professionals (I). A significantly higher proportion of healthcare workers suffer from mental disorders relative to the general population (2). The prevalence of these disorders was found to be highest following pandemics, the most recent one being the COVID-19 pandemic (3).

Health Care Workers (HCW)/Health Care Professionals, refers to professionals who maintain human health by applying evidence-based medicine and care (4). They include doctors, nurses, dentists, midwives, pharmacists, etc.

A mental disorder simply put is any illness with distressing psychological or behavioral manifestations that cause impairment in one or more areas of functioning (5). More comprehensively, mental illness is characterized by a set of symptoms or behavior that constitutes a deviation from the normal, distresses the individual or others and impairs their functioning (6).

There are different types of mental disorders, but the most commonly observed ones among healthcare workers include anxiety disorders, post-traumatic stress disorder (PTSD), depression, sleep disorders, substance use disorders etc. According to Hill et al., the most prevalent mental illnesses among healthcare workers were PTSD (21.7%), drug/alcohol addiction (20%), anxiety disorder (16.1%), Major depressive disorder (MDD) (13.4%), and Acute stress disorder (7.4%) (7). Conversely, a study carried out among health workers in Kenya showed that depression was the most common mental health disorder while other disorders like addictions and bipolar affective disorders (BAD) were also prevalent (8).

The dilemma with health professionals is that, unlike

the general population who may seek care whenever they develop symptoms of mental disorders, doctors and other health workers are less likely to seek help. This striking reluctance amongst medical trainees/ practitioners in seeking help for mental-health-related conditions may be attributed to the associated stigma, fear of losing a medical license, higher medical liability insurance, and negative career repercussions associated with being tagged with a mental disorder (1).

This paper highlights the prevalence and discusses the factors associated with mental health problems among healthcare workers. This was achieved by reviewing the literature on this topic, including articles from the last ten years.

THE MAGNITUDE OF THE PROBLEM

Like earlier mentioned, the rate of mental health problems is higher among health care workers than the general population. For example, suicide risk has been proven to be higher among healthcare workers compared to non-healthcare workers. More than 300 doctors die by suicide each year across the United States which is more than double of what is observed in the general population (9,10). Furthermore, in a survey done in 2022, I in 10 doctors said they had considered or attempted suicide (11). Also, according to Olfson et al. in a study conducted among health workers, suicide risk was found to be highest among healthcare support workers, followed by registered nurses and health technicians (12). The possible reasons behind such alarming numbers were identified to include burnout from an already-stressful lifestyle, emotional distress, staff shortages, etc. (13)

FACTORS IMPLICATED IN THE PROPAGATION OF THE PROBLEM

Several reports suggest a connection between an individual's profession and their risk of suicide. A study on suicide rates across different professions found that physicians had the highest risk, with a rate 2.73 times higher than average, while engineers and architects had the lowest risk, at 0.44 times the average rate (14). Ease of access to suicide tools is also a significant risk factor to consider when evaluating the risk of suicide. A study confirmed that those working in the medical field, such as nurses, doctors, and pharmacists, have increased access to these means and, therefore, have a higher risk of using poisonous substances to

end their lives (15).

Burnout

A very stressful work environment with high task demands and few resources can lead to burnout. A cross-sectional survey among 2,734 female nurses employed in Taiwanese hospitals found that those that experienced burnout had a higher rate of suicidal ideation than those who did not (16). Proinflammatory cytokines, including TNF and IL-6, are released while under stress; which stimulate microglia in the central nervous system to release more proinflammatory cytokines. Eventually, this immunological cascade may lower serotonin and other monoamine neurotransmitters, which are implicated in depression (17). The very busy schedule of HCWs such as long work hours, night shifts, poor rest and high work demands increases the risk of burnout which may also increase the risk of developing adverse mental health conditions.

Bullying

Bullying has also been identified as a risk factor associated with the development of mental health problems among health workers (18). Bullying refers to all actions intended to degrade, disparage and stigmatize an individual's personality and reputation (19).

Bullying has been reported to be rampant in the medical profession. For example, in a study carried out among health care workers in a Turkish teaching hospital, 74% physicians and 82% nurses reported being bullied in the workplace which was associated with a decline in performance and depression (19). A similar study conducted by Afolaranmi et al. in a Nigerian Teaching Hospital found that workplace bullying was highest among resident doctors (20).

According to Ekici and Beder (19), the commonest types of bullying among physicians and nurses were being wrongly blamed, humiliated, and degraded in front of others. They found that physicians were more likely to be bullied solely by physicians, but nurses seemed to experience bullying both from physicians and nurses. Both groups reported that they experienced similar behaviors from their superiors (19).

Workplace harassment can also be placed in this category. The likelihood of anxiety, sadness, or

burnout among health workers was significantly elevated by workplace harassment (11).

Working hours

Studies have shown a link between long working hours and the development of mental health problems among HCWs. A Japanese study found that spending more than 80 hours a week in training significantly exacerbates depressive symptoms (21). Reducing physicians' working hours is one way certain nations, especially in the industrialized West, acknowledge the need to create a healthier work environment (22).

One such initiative, the European Working Time Directive (EWTD), has significantly influenced work schedules and training in nations like Australia and New Zealand. In New Zealand, surgical residents work 40 hours weekly and no more than 8 hours daily (22). A meta-analysis demonstrating the impact of these changes found that physician suicide rates were lower in Australia and New Zealand than in North America (23).

Nature of job/specialty

There is a link between the unit, rotation, or specialty of an HCW and the development of mental illness. Those who are likely to witness multi-trauma patients, multiple mortalities, or those who have better access to narcotics and sedatives are at a higher risk of developing mental health problems (24). Compared to other medical professionals, anaesthetists have a higher tendency to misuse opioids, particularly Fentanyl, as their preferred substance (24). Anesthetists had a much higher incidence of drugrelated deaths and suicides than matched controls in the general community (25). The reason given by most of the participants was the ease of access to these prescription drugs.

On the other hand, emergency doctors who are exposed to multiple casualties and experience higher fatalities compared to other HCWs are more prone to anxiety and stress-related disorders. A cross-sectional study conducted in a tertiary hospital in Saudi Arabia showed that the Generalized Anxiety Disorder - 7 (GAD-7) scores of emergency medical services personnel were found to be the highest, followed by those of doctors and nurses (26).

Remuneration

It is known that poor socioeconomic status can both be a cause and consequence of mental illness. Although, substandard remuneration might not be much of an issue for health workers in HICs, it is still a significant challenge in LMICs as HCWs usually embark on incessant industrial actions to get their entitlements from the government. Although there are not many papers that explore the impact of poor pay on the mental health of HCWs, studies in the general working population have shown that there is clear evidence linking low income to poor mental health (27). A happy person in their work is less likely to have psychological morbidity. (28). This may also account for the higher burden of mental illness in LMICs than HICs.

Marital status

Unlike what has been found in the general population, where being married reduces one's risk of developing mental illness, doctors who are married have been found to have a higher risk of developing mental health problems. For example, a cross-sectional study conducted at the University of Ilorin Teaching Hospital showed that nearly two-thirds of physicians with mental morbidity were married. One reasonable explanation is marriage's added burden on a working doctor, especially for female doctors who would also need to care for their husbands and kids (29). However, it is unknown if the same applies to other categories of health workers.

RECOMMENDATIONS

Having highlighted the factors associated with the development of mental health problems among health care workers, here are some recommendations particularly for different stakeholders involved.

To the Government

- Ensure proper remuneration of HCWs and provide an enabling socioeconomic environment.
- Make or review laws to protect HCWs with mental illness from losing their jobs.

To the Individual

- Reach out for help when they develop symptoms of mental health problems.
- Ensure positive coping mechanisms such as

music, exercise, dinner with friends and families, recreation or relaxation, etc.

To the Health Sector

- Promote a healthy work environment for HCWs.
- Make provision for help hotlines so HCWs can seek help while maintaining anonymity.
- Provide treatment and rehabilitation programs for HCWs who develop mental health problems.
- Make provisions for routine screening exercises for mental health problems among HCWs, especially those at higher risk of developing mental health problems, as mentioned above.
- Reducing psychosocial burden by providing friendly work hours, breaks, day care services, and other welfare services.

CONCLUSION

Mental health problems are not only rampant in the general population, but they are also common among HCWs. Unlike the general population, HCWs are

less likely to reach out for help, contributing to the double burden of the disease. There are numerous factors implicated in the higher prevalence of mental health problems among HCWs, ranging from bullying in the workplace to burnout and exposure in different specialties to working hours and socioeconomic factors. Addressing these factors will be pivotal in devising an effective and targeted approach to mitigating the risk of mental health concerns among HCWs.

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REFERENCES

- I. Ng IK, Tan BC, Goo S, Al-Najjar Z. Mental health stigma in the medical profession: Where do we go from here? Clin Med (Lond) [Internet]. 2024;24(1):100013. Available from: https://pubmed.ncbi.nlm.nih.gov/38382183/
- 2. Abera Mulatu H, Tesfaye M, Woldeyes E, Bayisa T, Fisseha H, Kassu RA. NC-ND license. J Affect Disord Rep [Internet]. 2021 [cited 2024 Mar 30];6:2666–9153. Available from: http://creativecommons.org/licenses/by-nc-nd/4.0/
- 3. Fukushima H, Imai H, Miyakoshi C, Naito A, Otani K, Matsuishi K. The sustained psychological impact of coronavirus disease 2019 pandemic on hospital workers 2 years after the outbreak: a repeated cross-sectional study in Kobe. BMC Psychiatry [Internet]. 2023;23(1):313. Available from: https://pubmed.ncbi.nlm.nih.gov/37143062/
- Definition and list of health professionals. 2013 [cited 2024 Mar 29]; Available from: https://www.ncbi.nlm.nih.gov/books/ NBK298950/
- Mental disorder | Definition, Types, Treatment, & Facts | Britannica [Internet]. [cited 2024 Mar 30]. Available from: https://www.britannica.com/science/mental-disorder
- 6. Mental health [Internet]. [cited 2024 Mar 30]. Available from: https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response
- 7. Hill JE, Harris C, Danielle L. C, Boland P, Doherty AJ, Benedetto V, et al. The prevalence of mental health conditions in healthcare workers during and after a pandemic: Systematic review and meta-analysis. J Adv Nurs. 2022 Jun 1;78(6):1551–73.

- 8. Ndori Jaika S, Kathukumi K, Maingi Z, Tibbs C, Odera P, Konyole S. Prevalence of Mental Health Disorders among Healthcare Workers in the Context of COVID-19 Pandemic in Western Region, Kenya. Vol. 35, African Journal of Health Sciences.
- Doctors Die By Suicide At Double The Rate Of The General Population: Shots - Health News: NPR [Internet]. [cited 2024 Mar 30]. Available from: https://www.npr.org/sections/ health-shots/2018/07/31/634217947/to-prevent-doctorsuicides-medical-industry-rethinks-how-doctors-work
- Kalmoe MC, Chapman MB, Gold JA, Giedinghagen AM, Chapman M. Physician Suicide: A Call to Action. 2019;
- The physician mental health crisis, explained Vox [Internet].
 [cited 2024 Apr 5]. Available from: https://www.vox.com/health/23921266/mental-health-doctors-physicians-depression-burnout
- 12. Olfson M, Cosgrove CM, Wall MM, Blanco C. Suicide Risks of Health Care Workers in the US. JAMA [Internet]. 2023 Sep 26 [cited 2024 Mar 30];330(12):1161–6. Available from: https://www.medscape.com/viewarticle/997012
- 13. Awan S, Diwan MN, Aamir A, Allahuddin Z, Irfan M, Carano A, et al. Suicide in Healthcare Workers: Determinants, Challenges, and the Impact of COVID-19. Vol. 12, Frontiers in Psychiatry. Frontiers Media S.A.; 2022.
- 14. Agerbo E, Gunnell D, Bonde JP, Bo Mortensen P, Nordentoft M. Suicide and occupation: the impact of socio-economic, demographic and psychiatric differences. Psychol Med [Internet]. 2007 Aug [cited 2024 Mar 31];37(8):1131–40. Available from: https://pubmed.ncbi.nlm.nih.gov/17445281/

- 15. Skegg K, Firth H, Gray A, Cox B. Suicide by occupation: does access to means increase the risk? Aust N Z J Psychiatry [Internet]. 2010 [cited 2024 Mar 31];44(5):429–34. Available from: https://pubmed.ncbi.nlm.nih.gov/20397784/
- 16. Chin WS, Chen YC, Ho JJ, Cheng NY, Wu HC, Shiao JSC. Psychological Work Environment and Suicidal Ideation Among Nurses in Taiwan. J Nurs Scholarsh [Internet]. 2019 Jan 1 [cited 2024 Mar 31];51(1):106–13. Available from: https://pubmed.ncbi.nlm.nih.gov/30466180/
- 17. Yrondi A, Sporer M, Schmitt L, Arbus C. Major depressive disorder: An organic disorder! Presse Med [Internet]. 2018 Feb I [cited 2024 Apr 5];47(2):113–5. Available from: https://pubmed.ncbi.nlm.nih.gov/29622139/
- 18. Kabir H, Chowdhury SR, Roy AK, Chowdhury SA, Islam MN, Chomon RJ, et al. Association of workplace bullying and burnout with nurses' suicidal ideation in Bangladesh. Sci Rep. 2023 Dec 1;13(1).
- 19. Ekici D, Beder A. The effects of workplace bullying on physicians and nurses. Australian Journal of Advanced Nursing [Internet]. 2014 [cited 2024 Nov 1];31(4):24–33. Available from: https://www.researchgate.net/publication/285145226_ The_effects_of_workplace_bullying_on_physicians_and_nurses
- 20. Afolaranmi TO, Hassan ZI, Gokir BM, Kilani A, Igboke R, Ugwu KG, et al. Workplace Bullying and Its Associated Factors Among Medical Doctors in Residency Training in a Tertiary Health Institution in Plateau State Nigeria. Front Public Health [Internet]. 2022 Jan 27 [cited 2024 Nov 1];9:812979. Available from: www.frontiersin.org
- 21. Ogawa R, Seo E, Maeno T, Ito M, Sanuki M, Maeno T. The relationship between long working hours and depression among first-year residents in Japan. BMC Med Educ. 2018 Mar 27;18(1).
- 22. Gough IR. The impact of reduced working hours on surgical training in Australia and New Zealand. Surgeon [Internet]. 2011 [cited 2024 Mar 31];9 Suppl 1(SUPPL. 1). Available from: https://pubmed.ncbi.nlm.nih.gov/21550001/
- 23. Dutheil F, Aubert C, Pereira B, Dambrun M, Moustafa F,

- Mermillod M, et al. Suicide among physicians and health-care workers: A systematic review and meta-analysis. PLoS One [Internet]. 2019 Dec I [cited 2024 Mar 31];14(12):e0226361. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0226361
- 24. 2 Drug and Alcohol Abuse amongst Anaesthetists Guidance on Identification and Management Membership of the working party. 2011 [cited 2024 Apr 5]; Available from: www.aagbi.org
- Alexander BH, Checkoway H, Nagahama SI, Domino KB. Cause-specific mortality risks of anesthesiologists. Anesthesiology [Internet]. 2000 [cited 2024 Apr 5];93(4):922–30. Available from: https://pubmed.ncbi.nlm. nih.gov/11020740/
- Alharthy N, Alrajeh OA, Almutairi M, Alhajri A. Assessment of Anxiety Level of Emergency Health-care Workers by Generalized Anxiety Disorder-7 Tool. Int J Appl Basic Med Res [Internet]. 2017 [cited 2024 Apr 5];7(3):150. Available from: /pmc/articles/PMC5590375/
- 27. Thomson RM, Igelström E, Purba AK, Shimonovich M, Thomson H, McCartney G, et al. How do income changes impact on mental health and wellbeing for working-age adults? A systematic review and meta-analysis. Lancet Public Health [Internet]. 2022 Jun 6 [cited 2024 Apr 5];7(6):e515. Available from: /pmc/articles/PMC7614874/
- Graham J, Potts HWW, Ramirez AJ, McManus IC. Stress and burnout in doctors [4] (multiple letters). Lancet [Internet].
 Dec 14 [cited 2024 Apr 5];360(9349):1975–6.
 Available from: https://pubmed.ncbi.nlm.nih.gov/12493290/
- Holmes J. Mental health of doctors. Advances in Psychiatric Treatment [Internet]. 1997 Sep [cited 2024 Apr 5];3(5):25 I—
 Available from: https://www.cambridge.org/core/journals/advances-in-psychiatric-treatment/article/mental-health-of-doctors/717922AC9B3D8155C748E6EA1A0F69E2