

Mental health concerns among medical professionals – Review and synthesis

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Conditions

Burnout

Depression

Anxiety

Suicide

Substance Use

Populations

Medical Students

Medical Residents

Doctors

Burnout

- 42 studies assessing 26,824 medical students across the world
- Prevalence of burnout – 37.23%
 - Emotional exhaustion – 38.08%
 - Depersonalization – 35.07%
 - Personal accomplishment – 37.23%
- Age (older) and sex (female) were significant predictors
- Variations observed between countries and research measures.

Almutairi H, Alsubaiei A, Abduljawad S, Alshatti A, Fekih-Romdhane F, Husni M, Jahrami H. Prevalence of burnout in medical students: A systematic review and meta-analysis. *Int J Soc Psychiatry*. 2022 Sep;68(6):1157-1170.

Burnout

- 26 studies involved 4,664 medical residents
- Overall burnout prevalence for all specialties – 35.1%
- Higher burnout prevalence in:
 - General surgery, anesthesiology, obstetrics/gynecology and orthopedics (40.8%)
 - Internal medicine, plastic surgery and pediatrics (30.0%)
 - Otolaryngology and neurology (15.4%)

Rodrigues H, Cobucci R, Oliveira A, Cabral JV, Medeiros L, Gurgel K, Souza T, Gonçalves AK. Burnout syndrome among medical residents: A systematic review and meta-analysis. PLoS One. 2018 Nov 12;13(11):e0206840.

Burnout

- 182 studies involving 109628 physicians from 45 countries
- Overall burnout prevalence – 0% to 80.5%
 - Emotional exhaustion prevalence – 0% to 86.2%
 - Depersonalization prevalence – 0% to 89.9%
 - Low personal accomplishment prevalence – 0% to 87.1%

Burnout

- 15 studies assessing 3845 HCPs from India
- Pooled prevalence of burnout:
 - Emotional exhaustion – 24%
 - Depersonalization – 27%
 - Personal accomplishment – 23%
- Younger age, female gender, unmarried status, and difficult working conditions were significant predictors

Kesarwani V, Husaain ZG, George J. Prevalence and Factors Associated with Burnout among Healthcare Professionals in India: A Systematic Review and Meta-Analysis. *Indian J Psychol Med.* 2020 Mar 9;42(2):108-115.

Depression

- 167 cross-sectional studies (n = 116628) and 16 longitudinal studies (n = 5728) of medical students from 43 countries
- Pooled prevalence of depression or depressive symptoms – 27.2%
- Percentage screening positive for depression who sought psychiatric treatment – 15.7%

Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, Sen S, Mata DA. Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. JAMA. 2016 Dec 6;316(21):2214-2236.

Depression

- 31 cross-sectional studies (9447 individuals) and 23 longitudinal studies (8113 individuals) of resident physicians from across the world
- Prevalence of depression or depressive symptoms among resident physicians was 28.8%
- Prevalence changed depending on the instrument used, and increased with calendar year

Mata DA, Ramos MA, Bansal N, Khan R, Guille C, Di Angelantonio E, Sen S. Prevalence of Depression and Depressive Symptoms Among Resident Physicians: A Systematic Review and Meta-analysis. JAMA. 2015 Dec 8;314(22):2373-83.

Depression

- 26 studies of depression (31,447 participants) and 30 of anxiety (33,281 participants) among doctors during the COVID-19 pandemic
- Pooled prevalence of depression and anxiety was 20.5% and 25.8% respectively

Johns G, Samuel V, Freemantle L, Lewis J, Waddington L. The global prevalence of depression and anxiety among doctors during the covid-19 pandemic: Systematic review and meta-analysis. *J Affect Disord.* 2022 Feb 1;298(Pt A):431-441.

Depression

- 28 studies involving 7046 medical students from different medical colleges of India
- Pooled prevalence estimate of depression among medical students in India – 40%
- Girls had a slightly higher risk of depression than boys
- Article authors and type of screening instrument also influenced prevalence

Dwivedi, Nidhi; Sachdeva, Sandeep; Taneja, Neha. Depression among Medical Students of India: Meta-Analysis of Published Research Studies using Screening Instruments. Indian Journal of Social Psychiatry 37(2):p 183-190, Apr–Jun 2021.

Anxiety

- 69 studies comprising 40,348 medical students from across the world
- Global prevalence rate of anxiety among medical students – 33.8%
- Anxiety was most prevalent among medical students from the Middle East and Asia
- Subgroup analyses by gender and year of study found no statistically significant differences in the prevalence of anxiety

Quek TT, Tam WW, Tran BX, Zhang M, Zhang Z, Ho CS, Ho RC. The Global Prevalence of Anxiety Among Medical Students: A Meta-Analysis. *Int J Environ Res Public Health*. 2019 Jul 31;16(15):2735.

Suicide

- Suicidal ideation prevalence data were extracted from 24 cross-sectional studies (n = 21 002) of medical students from 15 countries
- Pooled crude prevalence of suicidal ideation – 11.1%
- Prevalence estimates varied with assessment modalities

Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, Sen S, Mata DA. Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. JAMA. 2016 Dec 6;316(21):2214-2236.

Suicide

- 358 suicide deaths among medical students (125), residents (105) and physicians (128) were reported between 2010 and 2019
- Female residents and physicians were younger than their male counterparts at the time of suicide
- Anesthesiology (22.4%) followed by obstetrics-gynaecology (16.0%) had the highest suicide deaths
- Academic stress among medical students (45.2%) and residents (23.1%), and marital discord among physicians (26.7%)

Chahal S, Nadda A, Govil N, et al. Suicide deaths among medical students, residents and physicians in India spanning a decade (2010–2019): An exploratory study using on line news portals and Google database. *International Journal of Social Psychiatry*. 2022;68(4):718-728.

Substance Use

- Problematic alcohol use among doctors from high income countries – 5% and 20%
- Prevalence of lifetime use of illicit substances lower than for the general population
- Prevalence of prescription drug use (eg, benzodiazepines and minor opiates) higher than general population estimates and often self-prescribed

Harvey SB, Epstein RM, Glozier N, Petrie K, Strudwick J, Gayed A, Dean K, Henderson M. Mental illness and suicide among physicians. *Lancet*. 2021 Sep 4;398(10303):920-930.

Substance Use

- 65 studies of medical students from India
- Pooled prevalence of :
 - Any substance use – 40.3%
 - Alcohol use – 27.1%
 - Tobacco use – 21.9%
 - Cannabis use – 8.2%
- Males > Females

Sahu A, Bhati N, Sarkar S. A systematic review and meta-analysis of substance use among medical students in India. *Indian J Psychiatry*. 2022 May-Jun;64(3):225-239.

Substance Use

Table. Demographic and clinical details of physicians admitted (2007-2012) (n=58)

Mean age (yr)	46 ± 10
Gender	
Male	56
Female	2
Specialties of work: N (%)	
Medical	26 (46)
Surgical	20 (33)
Pre- & paraclinical	12 (21)
Mean age at onset of substance use (yr)	26 ± 8
Mean age at onset of dependence criteria (yr)	32 ± 8
Mean age at initiation of first treatment for SUD (yr)	42 ± 10
Primary substance dependence for which the treatment was sought N (%)	
Alcohol	30 (53)
Opioid	26 (46)
Benzodiazepine	11 (19)
Multiple-substance dependence (3 or more)	23 (40)
N (%)	
Positive family history of SUD N (%)	34 (58)
High risk behaviours: N (%)	
Intravenous drug use	24 (42)
High risk sexual activity	4 (7)
Drink and driving	3 (5)

SUD, substance use disorder

- Profile of physicians seeking IP treatment:
- Alcohol and Prescription Drugs are most common
- Physicians take 10 years after development of dependence to come for treatment
- 33% did not come for even one follow up

Kandasamy A, Aneelraj D, Jadhav P, Sunder P, Chand PK, Murthy P, Benegal V. Pattern & profile of substance use disorder (SUD) in physicians. Indian J Med Res. 2015 Sep;142(3):344-5.

Help seeking

- Rates of help-seeking among physicians with mental disorders – 13% and 36%
- Major barriers including:
 - Fears regarding confidentiality
 - Potential consequences for their career, medical registration, and licensure
 - Insufficient time
 - Belief that they can manage any symptoms by themselves

Harvey SB, Epstein RM, Glozier N, Petrie K, Strudwick J, Gayed A, Dean K, Henderson M. Mental illness and suicide among physicians. *Lancet*. 2021 Sep 4;398(10303):920-930.

Help seeking

- Qualitative studies of physicians who have had mental health problems have shown:
 - High prevalence of self-stigma
 - Views that doctors should be invincible
 - Fear of discrimination
 - Cultural stigma among medical professionals

Harvey SB, Epstein RM, Glozier N, Petrie K, Strudwick J, Gayed A, Dean K, Henderson M. Mental illness and suicide among physicians. *Lancet*. 2021 Sep 4;398(10303):920-930.

Potential Solutions

Individual physician

Hospital and health system

Professional colleges and external regulators

Conclusion

- Higher rates of mental morbidity as compared to general population
- Low rates of help seeking due to barriers related to stigma, beliefs about self and fears related to discrimination and potential consequences
- Need for interventions at level of individual physician, hospital and health system and professional colleges and external regulators