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SUICIDE RISK- RELATED FACTORS AND THEIR PREVENTION AMONG THE HEALTHCARE PROFESSIONALS IN INDIA- A REVIEW

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ABSTRACT Suicide is the most critical psychiatric emergency that alarms us all yet it is often neglected among healthcare professionals themselves. While the etiology of suicide is complex bio-psycho-social and occupational factors related, it's management is further made difficult due to various barriers to acknowledging the need to seek help and treatment. There is also a lack of a system for educating about the warning signs, preventive measures and regulatory measures on a larger scale, which is much needed for the comprehensive management of suicide among healthcare workers in India.

KEYWORDS :

INTRODUCTION:

Each suicide not only takes an individual's life prematurely-, but also has an immediate and continuing effect- affecting the lives of families, friends and communities. In India, during the year 2020 a rise of 10.0% i.e. a total of 153,052 suicides was reported (1); highlighting the continuing raise in mortality attributed to suicide. There has been an increased incidence of suicide among the medical health professionals as well.

The risk of suicide is not uncommon among the health professionals. The literature suggests that Physicians have a modestly higher (men) to much higher (women) suicide rates than the general population (2). Out of the 425 medical students interviewed, it was found out that 29.6% had a suicidal risk and 5.4% of them had a history of a past suicide attempt (3) . A recent study in the students of a government medical college in Delhi revealed that the prevalence of suicidal ideation was almost 54% (4), which was remarkably higher to the suicidal ideation of 5.8% among the med students studying in US (5). The suicide rates are even higher among anesthesiologists, general practitioners, and psychiatrists (6).

The major causes of suicides were Family Problems' and 'Illness' which around 33.6% and 18.0% was of total suicides respectively (2020). The other causes of suicides were enlisted in causes include- 'Drug Abuse/ Addiction' (6.0%), 'Marriage Related Issues' (5.0%), 'Love Affairs' (4.4%), 'Bankruptcy or Indebtedness' (3.4%), 'Unemployment' (2.3%) ,'Failure in Examination' (1.4%), Professional/Career Problem' (1.2%) and 'Poverty' (1.2%).

Suicide risk factors are male sex (for completed suicides), younger age, fewer years of formal education, unmarried status, and the presence of mental disorders. Occupational hazards are also associated with suicide risk; physicians typically have higher suicide rates than the general population, including the military. Overall, age-standardized suicide mortality ratios (SMRs) for physicians were significantly higher (i.e., higher suicide rates in physicians compared with the general population) according to a meta-analysis, including much higher findings for female physicians and moderately higher findings for male physicians. However, heterogeneity was considerable for the meta-analysis overall, and data quality was higher for the suicides of male physicians, possibly because the data ranged from 1910 to 1998 and multiple articles had no data on female physicians. (7)

Indian Scenario:

A total of 358 suicide deaths among medical students (125), residents (105) and physicians (128) were reported between 2010 and 2019. Around 7 out of 10 suicides happened before the age of 30 and had a mean age of 29.9 (±12.2) years. Female residents and physicians were younger than their male counterparts at the time of suicide. Overall maximum suicide deaths were concentrated in South India except in the state of Kerala. The specialty of anesthesiology (22.4%) followed by obstetrics and gynecology (16.0%) had the highest number of suicide deaths. Violent suicide methods were more commonly used by all, with hanging being the most common mean of suicide. Academic stress among medical students (45.2%) and residents (23.1%), and marital discord among physicians (26.7%) were the most noticeable reasons for suicide. Mental health problems were the next most common reason in medical students (24%) and physicians (20%) while harassment (20.5%) was in residents. Twenty-six percent had exhibited suicide warning signs and only 13% had ever sought psychiatric help before ending their lives. A total of nine reports of suicide pact were found with the average deaths per pact being 2.4 and predominantly driven by financial reasons (7).

This could be because the four southern states account for more than 41% of the medical colleges in the country (7).

A study in 2018 by Bilsen J. et al, showed that out of the total 265 participants in their study, there were 138 (52.1%) males and 127 (47.9%) females. In the first professional year, the mean age for students was 18.9 years whereas it was 20.1 years for second professional year students. The mean age for third and fourth professional year students were 21 years and 22.1years respectively while interns aged 23.4 years on average (8). The most common method of suicide was hanging among the Indian doctors.

In the most recent Indian study by Kishor, M., 2021- it was found that one-fourth of doctors used medication as injections to end their life, reports mention all most all used anaesthetic drugs. One-fifth used violent methods to end their life by jumping from the buildings and one of them jumped in front of a train. This study also reported about the doctor's use lethal methods to end life, those methods make the attempts certain of death such as hanging or using anaesthetic drugs. It was also seen that the revival was almost difficult in these cases of jumping from heights.(10)

Factors Contributing To The Risk Of Suicide Among Health-care Professionals:

A) Socio-demographic:

The younger age group are at the highest risk of suicide worldwide. (9) In Indian population, 67% who committed suicides were young and below the age of 30 years. Apart from age, female gender predisposes as a risk factor too. In an Indian study it was found that 18 out of 30 cases were females contributing to 60% of suicide. Talking about the regional distribution of suicides among doctors in India, it was found to

be near equal, 13 (43%) from North and 17 (57%) from south India. (10)

B) Social:
Medicine is a prestigious and valued career, but it can be arduous. Doctors are required to work long hours, make difficult decisions in the face of uncertainty and cope with death and distress while maintaining compassion. (11,12)

A lack of work–life balance in postgraduate medical training negatively impacted on trainees' learning and well-being. Women with children were particularly affected, suggesting this group would benefit the greatest from changes to improve the work–life balance of trainees (13).

In a study, 20% of doctor's suicide, marital discord was mentioned as reason. Three reports mentioned about harassment as reason for suicide.(10)

C) Medical:
Some medical conditions like diabetes, hypothyroidism, hyperthyroidism, cancers, HIV-AIDS etc. increases risk for suicide. Chronic pain and use of substances like alcohol, sedatives, cannabis, opioids etc. are related to suicide.

D) Psychiatric:
Among the psychiatric causes- depression in one of the important etiology. More than 60% cases of suicide among doctors had associated depression. [18] Burnout is another cause that is common among health professionals and can cause risk of suicide.(14)

A systematic review for assessing mental health issues among the medical doctors reported about "not interested in MBBS", "ragging", "bullying", "exam anxiety", "exam failure" – were found to be some other specific psychological factors associated with suicide risk.(15)

E) Career Stage:
Medical profession begins from MBBS phase, they are budding doctors and they should be included in any study that is targeted at the profession apart from the postgraduate medical student and practicing doctors. In a study (Kishor M, 2021), one-fourth of suicides were MBBS students, one-third were postgraduate medical students and rest were practicing doctors. There are many studies in India about depression and suicidal ideation among medical students because of multiple stressors (10).

Post- graduation may also have additional stressors for individuals such as financial burden, more professional responsibility, and many getting married to start their families. This study from newspaper reports has limited information on such stressors, but in another study from India, **residents in general had more depression and suicidal ideation compared to faculty** (10).

In our study, 40% of doctors who committed suicides were practicing doctors. Reports mention that, among this section of doctors, more than one-third had MBBS degree and two-third had MD/MS degree. Although our study from available doctors' suicide news reports is small, anesthesia doctors are notable in numbers. Indian and Western studies have consistently highlighted risk of suicide in this specialty, and our study substantiates the findings. (16,17)

Among different subspecialties; six doctors belonged to anesthesia, three from dermatology, and two from radiology (18).

F) Work Place Related Issues:
No physician, however conscientious or careful, can tell what day or hour he may not be the object of some undeserved attack, malicious accusation, black mail or suit for damages (19)

An ongoing study by Indian Medical Association (IMA) reports that 75 per cent of doctors in India have faced violence at some point of time in their life, and most of the time, it is verbal abuse. Emergency and ICU are the most violent venues and visiting hours is the most violent time (20).

F) Protective Factors:
Marriage acts as a protective factor against suicide. Reported rates of suicide among the various categories revealed that among married people the suicide rate is 11/100 000 (21, 22). Rates of suicide were highest among divorced men (69/100 000) and those who are widowed (40/100 000). This has universally indicated marriage as a protective element with regard to suicide risk. One's degree of orthodoxy and social integration may be a more accurate measure of risk in this category (21).

Absence of risk factors, a history of self-control, cultural or religious beliefs that mitigate against suicide, and fears of harming or letting down family members (23).

Strategies To Prevent Suicide Risk Among The Healthcare Workers:
One of the essential element for prevention is early detection of the symptoms of any illness. So, one should be aware about what to look for. Education and knowledge about the risk factors along with the early warning signs about the suicide risk is important initial step in its management. Following are the warning signs one should know:

Table No. 1: Warning Signs Of Suicide:

Talking About	Feeling	Changing Behavior
• Wanting to die • Great guilt or shame • Being a burden to others	• Empty, hopeless, trapped, or having no reason to live • Extremely sad, more anxious, agitated, or full of rage • Unbearable emotional or physical pain	• Making a plan or researching ways to die • Withdrawing from friends, saying goodbye, giving away important items, or making a will • Taking dangerous risks such as driving extremely fast • Displaying extreme mood swings Eating or sleeping more or less Using drugs or alcohol more often

Primary prevention efforts in the workplace seek to reduce the risk of suicide by preventing work stress and difficult working conditions. Employers can take a holistic approach to make changes at work that can affect overall health and well-being, including physical, psychological, social, and economic aspects. This can include:
- Keeping workers safe,
- Paying attention to hours and demands with appropriate work schedules, adequate time off and staffing, as well as appropriate quantity and intensity of work,
- Promoting a positive workplace culture,
- Ensuring worker respect,
- Supporting work-life fit, and
- Preventing negative factors such as discrimination and bullying.

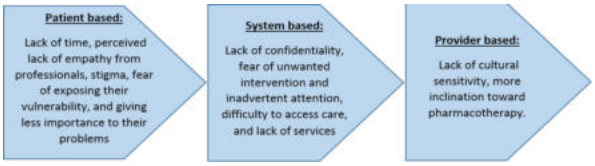
The National Action Alliance for Suicide Prevention has a Comprehensive Blueprint for Workplace Suicide Prevention that provides guidance to workplaces to promote mental health and suicide prevention. This comprehensive blueprint includes screening, mental health services and resources, suicide prevention training, life skills and social network promotion, crisis management, policy and means restriction, education and advocacy, social marketing, and guidance for leadership.

The Centers for Disease Control and Prevention's Preventing Suicide: A Technical Package of Policy, Programs, and Practices provides strategies with the best available evidence to prevent suicide. These strategies address preventing suicide risk before it occurs as well as prevention that seeks to keep people safe who may already be at risk. These two categories of strategies can be supported and implemented by employers. Prevention strategies that employers can consider include (24):
- Increasing access to mental health screening tools for self-assessment
- Increasing access to behavioural health care services (e.g., Employee Assistance Programs) and offering easy access for employees to helping services (e.g., mental health and substance use disorder treatment, financial counseling)
- Promoting connectedness and a sense of community
- Improving organizational policies to create safer workplaces, including strategies to reduce access to lethal means of suicide

within workplaces
- Identifying and supporting people at risk through gatekeeper training for managers' and supervisors, where gatekeepers are those who are identified as having the potential to observe changes in mood and behaviors of others (15)
- Helping to educate colleagues at all levels about the role they play in keeping themselves and their colleagues safe and well
- Encouraging colleagues to have caring conversations and take action to be there for others, especially those who are struggling
- Teaching coping and problem-solving skills, including relationship and parenting programs
- Offering support and preventing future risk after death of a co-worker by suicide

Despite being aware about the need to seek help there are some factors that affect the access to health facility. The barriers to reach out help can be intrinsic or extrinsic. When we talk about healthcare professionals, a major barrier is professional related factor itself and the notion that doctors can't have health issues! Following are some important barriers seen among the healthcare providers with suicide risk:

Barriers To Seeking Help Among Health Professionals (25):



CONCLUSION:

Healthcare workers are significantly at a higher risk of suicide due to various bio-psycho-social and occupational factors. Despite being a major concern, there is limited knowledge among them to identify the risk behavior and seek early treatment and management. There is a need for educational activities for awareness, identifying early warning signs and laying out road maps to approach professional help at time of crisis.

Conflict Of Interest: None.

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REFERENCES:

1. https://ncrb.gov.in/sites/default/files/adsi2020_Chapter-2-Suicides.pdf
2. Schernhammer, Eva S.; Colditz, Graham A. (2004). Suicide Rates Among Physicians: A Quantitative and Gender Assessment (Meta-Analysis). American Journal of Psychiatry, 161(12), 2295–2302. doi:10.1176/appi.ajp.161.12.2295
3. Praveen Arun;Parthasarathy Ramamurthy;Pradeep Thilakan; (2021). *Indian Medical Students with Depression, Anxiety, and Suicidal Behavior: Why Do They Not Seek treatment?Indian Journal of Psychological Medicine,()*,.doi:10.1177/0253717620982326
4. https://www.researchgate.net/publication/234153413_Suicidal_ideation_among_medical_students_of_Delhi
5. Ventriglio A., Watson C., Bhugra D. Suicide among doctors: A narrative review. *Indian J. Psychiatry.* 2020;62:114–120
6. Dyrbye, Liselotte N. (2008). *Burnout and Suicidal Ideation among U.S. Medical Students. Annals of Internal Medicine, 149(5), 334–.* doi:10.7326/0003-4819-149-5-200809020-00008
7. Chahal, S., Nadda, A., Govil, N., Gupta, N., Nadda, D., Goel, K., & Behra, P. (2021). *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, 00207640211011365.* doi:10.1177/00207640211011365
8. Suicidal ideation among medical students of Delhi. Abhinav Goyal, Jugal Kishore, Tanu Anand, Akanksha Rathi
9. Bilsen J. Suicide and youth: Risk factors. *Front Psychiatry.* 2018;9:540
10. Kishor, M., Chandran, S., Vinay, H. R., & Ram, D. (2021). Suicide among Indian doctors. *Indian journal of psychiatry*, *63*(3), 279–284.
11. Shanafelt TD, Hasan O, Dyrbye LN et al.. Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014. *Mayo Clin Proc* 2015;90:1600–13. 10.1016/j.mayocp.2015.08.023
12. Balme E, Gerada E, Page L. Doctors need to be supported, not trained in resilience. *BMJ Careers* 2015.
13. Rich A, Viney R, Needleman S, Griffin A, Woolf K. 'You can't be a person and a doctor': the work-life balance of doctors in training-a qualitative study. BMJ Open. 2016 Dec 2;6(12):e013897. doi: 10.1136/bmjopen-2016-013897. PMID: 27913563; PMCID: PMC5168633.
14. Banerjee A. Physician Heal Thysels: Perspectives on burnout among doctors. *Perspect Med Res.* 2019;7:3–9
15. Sarkar S, Gupta R, Menon V. A systematic study of depression, anxiety, and stress among medical students in India. *J Ment Health Hum Behav.* 2017;22:88–96
16. Shinde S, Yentis SM, Asanati K, Coetzee RH, Cole-King A, Gerada C, et al. Guidelines on suicide amongst anaesthetists 2019. *Anaesthesia.* 2020;75:96–108.
17. Rajaleelan W, Chandramouleeswaran S, Kuppuswamy B. Assesment of mental health status of trainee anaesthesiologists in southern India tertiary care hospital. *Astrocyte.* 2015;1:292–4.
18. Ghiya M, Chandran S, Kishor M. The art of healing, emergency minds – A concept book. *J Emerg Trauma Shock.* 2019;12:163–4.
19. Assaults upon medical men. *JAMA.* 1892;18:399–400
20. Tian J, Du L. Microblogging violent attacks on medical staff in China: A case study of the Longmen county people's hospital incident. *BMC Health Serv Res.* 2017;17:363.
21. Kaplan HI, Sadock BJ. Synopsis of psychiatry,8th edition. New York: Lippincott Williams and Willikins; 1998. Chapter 3, pp. 864-872
22. Curry ML. Eight factors found critical in assessing suicide risk. Monitor in Psychology. 2000;31:2
23. Welton R.S. The Management of Suicidality: Assessment and Intervention. *Psychiatry (Edgmont)* 2007;4:24–34.
24. Mortali M.G., Moutier C. (2019) Suicide Prevention in the Workplace. In: Riba M., Parikh S., Greden J. (eds) Mental Health in the Workplace. Integrating Psychiatry and Primary Care. Springer, Cham.**)**
25. Givens JL, Tjia J. Depressed medical students' use of mental health services and barriers to use. Acad Med 2002;77:918-21.