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Are Medical Professionals prone to suicide?

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ABSTRACT:

Medical schools are known to be stressful environments for students and hence medical students have been believed to experience greater incidences of depression than others. Global prevalence of depression among medical students was found to be 28% and suicidal ideation in the last year was 11.1%.

The medical students often lack the competence or aptitude to meet the tough demands of people. Incidences of doctors being blamed and brutally attacked when a patient dies or is seriously ill is increasing in our country day by day

Top Academic factors for stress and suicidal ideation included academic curriculum, dissatisfaction with class lectures, lack of time for recreation, performance in examination, lack of special guidance from faculty and high parental expectations

Other stressors included personal (female gender, break-up in relationships, demise of spouse or children), financial (education loan), health (cancer and depression), and occupational (physical and psychological hazards like work place harassment) problems; ideation was more likely with multiple stressors.

This review aids the stakeholders to take necessary measures to reduce depression and suicidal ideation among doctors.

Preventing suicide still seems to be a distant dream, but efforts to reduce suicide rates should be taken at individual, societal and organization levels.

Keywords: Suicide, Medical Professionals, Stress, Depression

Introduction

Medical Profession has witnessed dramatic change in the last 75 years. The practice of medicine changed in the face of rapid advances in science, as well as new approaches by physicians. Hospital doctors began much more systematic analysis of patients' symptoms in diagnosis[1]. Earlier times, doctors were looked upon as God and were given immense respect. But now,the profession is on the verge of losing privilege, power, and public reputation. Incidences of doctors being blamed and brutally attacked when a patient dies or is seriously ill is increasing in our country day by day. This leads to immense stress among doctors.

Medical schools are known to be stressful environments for students and hence medical students have been believed to experience greater incidences of depression than others.

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Global prevalence of depression among medical students was found to be 28%, but the treatment rates are relatively low. The overall crude prevalence of suicidal ideation among medical students from 24 cross sectional studies is 11.1%[2]. Physicians' suicide rates have repeatedly been reported to be higher than those of the general population or other academics, but uncertainty remains[3].

Reliable estimates of depression and suicidal ideation prevalence during medical training are important for informing efforts to prevent, treat, and identify causes of emotional distress among medical students[4].

Being a doctor can be a lucrative, rewarding profession, but it also brings with it long hours, reluctant, if not downright no guarantee of success or stability. There have also been theories that suggest that because doctors are trained in medicine, they simply are more adept at actually committing suicide, knowing how to achieve their desired results and what drugs to administer to do so. While this theory hasn't been proven, it may also be a factor that helps explain the comparative high rate of suicide amongst them[5].

This review seeks to bring forth suicide among doctors and suggest measures to reduce suicidal ideation. This acts as an evidence base to inform the stake holders the mental health status of one of the most privileged groups in the society and to take appropriate steps in attaining mentally sound medical professionals.

Trends in Suicide

The story of suicide is probably as old as that of man himself. Through the ages, suicide has variously been glorified, romanticized, bemoaned, and even condemned. Be it the tragic Greek heroes Aegeus, Lycurgus, Cato, Socrates or the Roman figures Brutus, Cassius, Mark Anthony or the Egyptian princess, Cleopatra or Samson, Saul, Abimelech and Achitophel of the Old Testament or the suicide bombers in the present world, the universality of suicide transcends religion and culture. Ancient Indian texts contain stories of valor in which suicide as a means to avoid shame and disgrace was glorified[6].

Suicide is the third leading cause of death among those aged 15-44 years, and the second leading cause of death in the 10-24 years age group in some countries; these figures do not include suicide attempts which may be up to 20 times more frequent than completed suicide[6].

The rate of suicide is highest in Eastern European countries such as Belarus, Estonia, Lithuania, and the Russian Federation. High rates of suicide have also been reported in Sri Lanka, based on data from the WHO Regional Office for South-East Asia[7]

In the last two decades, the suicide rate has increased from 7.9 to 10.3 per 100,000. There is a wide variation in the suicide rates within our country. The southern states of Kerala, Karnataka, Andhra Pradesh and Tamil Nadu have a suicide rate of > 15 while in the Northern States of Punjab, Uttar Pradesh, Bihar and Jammu and Kashmir, the suicide rate is < 3. This variable pattern has been stable for the last twenty years. Higher literacy, a better reporting system, lower external aggression, higher socioeconomic status and higher expectations are the possible explanations for the higher suicide rates in the southern states[8].

Various studies around the globe have emphasized that students studying in medical and dental courses experience higher stress[9–11].

A study to assess the psychiatric disorders among professional women showed that Fifty-one percent of the MDs and 32% of the PhDs were diagnosed as having primary affective disorder. Other psychiatric disorders were found in less than 10% of each group. Depression among the psychiatrists was significantly more common (73%) than among the other physicians.More than 50% of all the women reported prejudice in training or employment, and depressed subjects

reported prejudice more often than well subjects.The presence of children and depression were shown to disrupt a woman's professional career[12].

The finding of a high prevalence of affective disorder among women physicians is consistent with the reported excessive suicide risk for this group.

The aggregate suicide rate ratio from 25 studies in 2004 showed that male physicians were 1.41 times and female physicians were 2.27 times at a higher risk than general population. Despite a dramatic increase in treatment, no significant decrease occurred in suicidal thoughts, plans, gestures, or attempts during the 1990s and 2000s[13].

Reasons for Suicide

Suicide among medical students

Despite an increased risk of suicide among medical professionals, we have very few studies on prevalence and predictors of suicidal ideation among medical students and young doctors[7,14–16]

The lifetime prevalence of stress among medical students was 43%, while 8% had planned suicide, and 1.4% had attempted suicide [13].

Longer duration of study and greater duration required to complete professional degree coupled with higher expectations from parents of same background poses a greater degree of stress in Medical students[17]

Top Academic factors for stress and suicidal ideation included academic curriculum , dissatisfaction with class lectures , long distance walk , lack of time for recreation , performance in examination , lack of special guidance from faculty and high parental expectations[14]

Other stressors included personal, financial, health, and occupational problems; ideation was more likely with multiple stressors[18]

12% of medical residents reported having suicidal thoughts at least 1 time during their residency, and 1% many times[15].

A study on 265 undergraduate students of a medical college in Delhi reported an association as high as 53.6 per cent with suicidal ideation. Suicidal ideation was highest in first professional year (64.4%) and lowest in third professional year (40.4%). About 4.9 per cent students seriously contemplated suicide and 2.6 per cent attempted suicide at least once in their life. Suicidal ideation was highest in first professional year medical students (64.4%) and lowest among the third professional year students (40.4%). Suicidal ideation was significantly associated with 'impulsive or reckless behavior in difficult situations', feeling of being 'better off dead' and 'it's all too much to manage'. A significant association was found with gender and 'non-working mothers[19].

In a study done in US in 2005 showed that 50% of students experience burnout and 10% experience suicidal ideation during medical school. Burnout seems to be associated with increased likelihood of subsequent suicidal ideation, whereas recovery from burnout is associated with less suicidal ideation[20].

When assessing stress among students in various years of study, Year 1 students indicated experiencing the highest degree of pressure from studies. Year 1 students gave high ratings to the workload and lack of feedback stressors. Year 3 students gave high ratings to 'Worries about future endurance/competence' and 'Pedagogical shortcomings'. In final year, both the latter factors were rated highly, but final Year students also gave higher ratings than the 2 other groups to 'Non-supportive climate'. Female students gave higher ratings than males to 4 out of 7 factors. A total of 2.7% of students had made suicide attempts[20]

A study assessing the comparative attitude towards suicidal ideation in Madras and Vienna showed a very restrictive attitude in Madras,

rejecting the right to commit suicide, nearly always judging suicide as a cowardly act, and rejecting the idea of assisted suicide[21].

On the other hand, in Vienna a more permissive attitude was found. It is interpreted that the Indian pattern comes close to a "medical" or "disease model", with stronger emphasis on mental illness, impulsiveness and emotional aspects, whereas the Viennese pattern reflects a "theoretical", "rational model", concentrating on cognitive factors and minimizing the influence of mental illness, emotional difficulties and restrictions related to suicidal behavior. Because of the different attitudes on suicidal ideation, only 16.8% reported previous suicidal ideation in Madras, compared to 51.5% in Vienna[21].

Suicidal ideation in medical school was predicted by lack of control, personality trait, single marital status, negative life events and mental distress (anxiety and depression). In the first postgraduate year, mental distress was the most important predictor followed by , job stress, vulnerability (neuroticism), single status, female gender and less working hours were independent predictors[16,20,21].

Medical student jumps to death-A final year MBBS student leapt to death from the terrace of the five-storey men's hostel on the campus. His classmates said he was depressed because he had been given zero in a practical paper[22].

Depressed medico ends life in hostel- A 30-YEAR-OLD second year post-graduate medical student died at the Medical College Hospital after she was found lying unconscious in the hostel room[23].

If a doctor who has studied how to tackle depression, is not able to deal with it, what will be the fate of other non-medical professionals be?[5].

Suicide among practicing Doctors/physicians

Suicide, a complex public health problem, is the main leading cause of death in World

The media sometimes gives intense publicity to "suicide clusters" - a series of suicides that occur mainly among young people specially professionals in a small area within a short period of time. These have a contagious effect especially when they have been glamorized, provoking imitation or "copycat suicides"[8].

Critical care doctors routinely work in a highly demanding, technical environment where dying and death are common events, and errors can be dangerous. Prevalence of moderate to severe stress level was 40%. Intensivists were spending longest hours in the Intensive Care Unit (ICU) followed by pulmonologists and anesthetists[24].

Too much responsibility at times, managing VIP patients, Lack of professional satisfaction as a critical care doctor, talking to distressed relatives working with inexperienced juniors, keeping up to date with knowledge, making the right decision alone , informing relatives about patient's death , and compromising standards when resources are short were in the top ten ranks of stress. Threat of violence, difficult relations with nursing staff and sexual harassment ranked lowest in the list[24].

12% of junior residents reported as having suicidal thoughts at least 1 time during their residency, and 1% many times. Suicidal thoughts were substantially more prevalent in the group with burnout in comparison to non-burnout[15].

A well-known Chinese ophthalmologist committed suicide by jumping to her death on January 6, 2017. A Chinese adult anesthesia doctor also committed suicide on February 15,2017. It is a cruel fact that more and more physicians in China died by suicide. The Chinese Medical Doctor Association (CMDA) reported that there were16 doctors who committed suicide from 2004 to 2014 and most of them were young doctors.

Since 2004, there have been 18 Chinese physicians who committed suicide. Of all 18 physicians who committed suicide, there were 5

doctors who committed suicide because of conflicts between doctors and patients. Anesthesia doctor committed suicide for he could not bear the humiliation from the family members of this patient. Moreover, 5 doctors committed suicide because suffering from serious illness (such as cancer and depression) and the other physicians committed suicide because of stress from overload work or life[25].

Suicide is a public health concern with risks that vary between occupation groups. Suicide victims in Colorado with a health care occupation were more likely to die by poisoning rather than by hanging, when compared to suicide victims without a health care occupation. The health care workers who die by suicide have an increased risk of eventual suicide death by poisoning rather than by firearm or hanging[26].

Conceptualization of suicide risk and risk assessment often involves examining both an individual's unique risk factors (e.g., mental illness or substance abuse) and broad factors (e.g.,age, race, and gender) that place him or her in a higher risk group. Psychologists in community agency, correctional, and inpatient settings exhibit higher levels of burnout than those in private practice or university counseling centers. Another potential risk factor may be psychologists' distinctive job-related stressors, including burnout, work setting, and secondary traumatic stress[27]

Like any other human being, doctors do have a personal life and issues leading to depression in personal life. Being female, unmarried, not having close friends, ,demise of spouse or children, extramarital affairs,break-up in love affairs all can lead to depression and suicidal ideation[2,14,28]

Measures to reduce suicide

Academic factors are found to be the most important. So there is a pressing need for definite measures to decrease substantially the burden of stress on the students.

Teaching techniques and college environments should be adapted to the needs of the students. The productive utilisation of existing student welfare systems, development of more student friendly environments and regular periodic extracurricular activities with universal participation can prove to be useful stress busters[29].Stress reducing techniques need to be encouraged in professional courses and counselors for the effective addressing and solving the problems is required in all professional courses. Parents and students should be aware that unnecessary expectations about academics can lead to stress

Periodic depression counseling should be conducted in all instituitions specially in professional colleges. Mentors should be able to detect depression at the earliest stage and refer them to a psychiatrist.

Burnout is prevalent in physicians and can have a negative influence on performance and career continuation. Adoption of Organisation directed approaches for reducing the burn out level should be targeted[6]. Creating awareness among public regarding diseases and treatment modalities, strengthening the professional associations to protect doctors will reduce the stress level among doctors

Conclusion

The task of suicide prevention is daunting. Preventive efforts should be directed both at the students' abilities to cope with stress and at mental health services for young doctors. Collaboration, coordination, cooperation and commitment are needed to develop and implement a national plan, which is cost-effective, appropriate and relevant to the needs of the community. It is the need of the hour to attain sound mental health for all,specially the most privileged group in the society.

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