

Original Article

THE FREQUENCY OF SUICIDAL IDEATION AND ITS RISK FACTORS AMONG MEDICAL STUDENTS OF LAHORE.

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ABSTRACT

Background: Suicide is an important public health problem and medical students constitute a vulnerable group to suicide. It is important to estimate the magnitude of suicidal ideation and its various predictors, as it is often a precursor warning leading ultimately to the act of actually taking one's own life. This study was conducted to determine the frequency of suicidal ideation and various factors among medical students.

Material and Methods: This cross-sectional study was conducted among 250 medical students of Allama Iqbal Medical College, Lahore. An equal number of male and female medical students from the first to the final year were recruited using the nonprobability purposive sampling technique. A structured, self-administered, pre-validated questionnaire was used for data collection. After obtaining informed consent from the participants, information was collected from study participants regarding gender, marital status, residential status, and family status along with recent suicidal ideation, self-harm, and related risk factors. SPSS version 21 was used for data entry and analysis.

Results: The mean age of respondents was 20.8 ± 1.8 years. Regarding residential status, 81.6% of respondents were hostelling and 18.4% were day scholars. Around 69.6% of students had self-reported anxiety/depression as well. The frequency of lifetime and recent suicidal ideation among medical students was found to be 17% and 23.6% respectively. Around 16% of students had a history of deliberate self-harm attempts.

Conclusion: A high frequency of suicidal ideation, self-harm attempts, and self-reported anxiety/depression among medical students was observed in the study which is an alarming situation and reflects that effective suicide prevention programs must be urgently developed for medical students to tackle the issue.

Key Words: Suicidal Ideation, Medical students, Self-Destructive Behavior

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INTRODUCTION

Suicidal ideation refers to suicidal thoughts or ideas, it ranges from passive contemplations of death or actively thinking about taking one's own life.¹ Suicidal behavior is a broader term ranging from suicidal ideation, to the planning of suicide,

making attempts of suicide and in the worst scenario, suicide.² It is estimated that 60% of the people who have suicide ideation plan their first suicidal attempt within one year of suicide ideation onset.³

Every year about one million people take their own life worldwide.^{2,4} The reduction of suicidal mortality has been addressed as a priority global target and included in "United Nations Sustainable Development Goals" as an indicator under target 3.4.⁵ Around 79 % of suicides occur in middle and low-income countries.⁴ Suicides are the second most common cause of premature deaths in 15 to

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29 years age group, and the third leading cause of death in 15–44 years of age worldwide. While among medical students, after accidents, suicide is the second leading cause of death.⁶ Suicidal ideation is one of the major predictors of suicidal attempts among medical students. Both suicidal thoughts and attempts are more common among them as compared to the general public.⁷ This issue appears to arise during medical school studies. First-year medical students have psychological illness rates similar to the general population of the same age group, but they face deterioration of their mental health with the passing years of their medical studies.⁸ The medical students are over-burdened due to the tough, lengthy syllabus and hectic academic routine, so they get less time and chance to relax and for leisure activities which may result in stress, anxiety, hopelessness, and other mental health issues. These factors may lead to suicidal ideation among medical undergraduates.⁶

Recent research conducted in the United States depicted that 11% of medical students committed suicide.⁹ A similar study carried out in Canada reported that 11% of the participants (medical students) had suicidal ideation.¹⁰ In Pakistan, research conducted in different medical and non-medical colleges in Abbottabad revealed that medical students have a higher level of academic stress as compared to non-medical students.¹¹ Another cross-sectional study conducted at Lahore medical and dental college reported that depression and suicidal ideation is more prevalent among female medical students as compared to male students.¹² Number of suicides among medical students has been rising in recent years in Pakistan due to various factors including failure to cope with hectic studies, academic pressure, contact with suffering, and other health and psychosocial issues exacerbating stress.⁶ Worldwide data about suicide and suicide attempts is limited and of poor quality.⁵

Several studies have been conducted about suicidal ideation in developed countries but only a few studies have been done in

Pakistan. The reason may be Pakistan is a conservative Islamic country where this topic is considered taboo. The current study's aim was to determine the frequency of suicidal ideation among medical students of Allama Iqbal Medical College Lahore and to determine the frequency of different factors related to suicidal ideation among students studying medicine. This is important as suicidal ideation frequently culminates in suicidal attempts and actual suicide. Furthermore, Medical professionals are an asset to a country and have a vital role in the health system, so their mental health issues should be emphasized and solutions to these problems should be searched. All these measures are based on an assessment of suicidal behavior and related factors among medical students.

MATERIAL AND METHODS

This cross-sectional study of 3 months duration was conducted among 250 medical students studying at Allama Iqbal Medical College Lahore. The sample size was calculated manually using the formula for sample size estimation for a single population proportion, taking the prevalence of lifetime suicidal ideation as 15.7, 5% margin of error, and 95% level of confidence. After adding 15 % to compensate for non-response, the sample size was rounded off to 250. Following ethical approval of the study, a non-probability purposive sampling technique was used to collect an equal number of male and female students from all five years of MBBS. Students belonging from either gender, from first to final year who were willing to participate were included in the study. Those who did not give consent were not included in the study. After explaining the aims and objectives of the study, oral informed consent was obtained from all participants, and confidentiality was assured. A pre-tested, structured, self-administered questionnaire was used. It was comprised of 3 sections. The first section included basic demographic details of participants the second section assessed factors related to suicidal behavior & the

third section inquired about lifetime and recent suicidal ideation during medical school and suicidal attempts: These were assessed by two self-reported yes/no questions developed from suicide module of WHO Composite International Diagnostic Interview (CIDI) questionnaire which is a standard tool having good validity and reliability and has been used extensively. The analysis was done using SPSS version 21. The quantitative variables were summarized as mean and standard deviation. Whereas the qualitative variables were expressed as frequency/percentage.

RESULTS

The mean age of the respondents was 20.8±1.8. Table 1 shows the demographic characteristics of the respondents. Out of 250 respondents, 96.4 % were single whereas only 3.6% were married. It was found that 86% of the students were living in a hostel as compared to 18.4% of day scholars. Around 7.2 % of students were living with single parents whereas 90% had both parents living together. (Table 1)

Table-1: Demographic characteristics of study respondents (n = 250)

No.	variable	Frequency	Percent
1	Gender	Male	125 50%
		Female	125 50%
2	Marital status of respondents	Single	241 96.4%
		Married	9 3.6%
3	Residence status	Day scholar	46 18.4%
		Living in Hostel	204 81.6%
4	Family status	Both parents together	225 90%
		Having single parent	25 10%

The frequency distribution of various factors related to suicidal ideation is shown in table 2. Around 96% of students enjoyed a good relationship with their family while 4% did not. The majority of students (91.2%) had a

close friend network and 8.8% did not have it. Regarding medical studies, 56.4% of students found the medical study burden hard to cope with and 31.2% wanted to quit medical studies due to excessive burden. When information regarding general health was taken it was found that 25.2% of students were suffering from serious chronic health problems and 51.2 % suffered from poor sleep/appetite. The majority of students (69.6%) had a self-reported history of anxiety/depression. Around 54.8% of students confessed to facing problems in social interaction.

Table-2: Frequency distribution of various risk factors of suicidal ideation among medical students (n = 250)

No	Variable	Yes Frequency (%)	No Frequency (%)
1	Enjoy good relationship with family	240 (96%)	10 (4%)
2	Have some close friends	228 (91.2%)	22 (8.8%)
3	Feel medical studies burden hard to cope with	141 (56.4%)	109 (43.6%)
4	Want to quit medical studies due to excessive burden	78 (31.2%)	172 (68.8%)
5	Suffering from any serious chronic health problem	63 (25.2%)	187 (74.8%)
6	History of anxiety/Depression	174 (69.6%)	76 (30.4%)
7	Suffering from poor appetite or disturbed sleep	128 (51.2%)	122 (48.8%)
8	Face problem in social interaction	137 (54.8%)	113 (45.2%)

Table 3 shows that 23.6% of medical students had suicidal ideation while 76.4 % had no suicidal ideation. Around 16 % of medical students had a history of attempting suicide.

Table 3: Frequency distribution of suicidal ideation and suicidal attempts among medical students (n= 250)

No	Questions	Yes	No
1	Have you ever seriously thought of committing suicide during the past six months of medical school?	59 (23.6%)	191 (76.4%)
2	Have you ever attempted to kill yourself / attempt suicide?	40 (16%)	210 (84%)

DISCUSSION

This cross-sectional study was designed to estimate suicidal ideation among medical students of Allama Iqbal medical college, Lahore. The frequency of lifetime and recent suicidal ideation among medical students was found to be 17% and 23.6% respectively. Around 16% of students had a history of deliberate self-harm attempts. In our society, suicide is religiously and socially condemned. That's why suicide is considered a taboo topic and suicidal behavior and self-harm are not discussed openly. Moreover, people having mental health problems are often stigmatized and often people do not seek help for these problems which further worsens the situation.

Medical students are especially prone to stress and anxiety as their studies are exceptionally demanding. One major outcome of chronic stress and anxiety is suicidal ideation which may be passive where the person only thinks about ending his/her own life or it may be active where an actual plan to commit suicide is made.

In this study, suicidal ideation and self-harm attempts were found in 23.6% and 16% of medical students respectively. In a similar study conducted in Karachi in 2013, it was found that during the past year 118 (35.6%) medical students had suicidal ideation, whereas 16 (4.8%) out of 331 students tried to commit suicide at some point in their life.¹³ Another study conducted in eight medical colleges across Pakistan, reported a

lower percentage of suicidal ideation than the current study and reported that approximately 6.8% of the medical students had suicidal thoughts and 9.5% had the desire for self-harm.¹⁴ In a study conducted in the United States around 11.2% of students confessed to having suicidal ideation.¹⁵ A similar study in China reported the percentage of students having suicidal thoughts to be 17.9% which is nearer to our results.¹⁶ Studies have shown that the most common mental health problem in people who suffer from suicidal ideation is a major depressive disorder.¹⁷

In our study, a very high percentage of students (69.6%) were found to be suffering from self-reported anxiety/depression. The results are similar to another study conducted in Saudi Arabia where the percentage of male students having depression was 44.4%, while that of females was 66.6%.¹⁸ Another study estimated that approximately 28% of medical students suffered from depression out of which 5.8% experienced suicidal ideation.¹⁹ A study conducted among medical students of Dow medical college also identified a history of psychiatric disorders as an important risk factor predisposing them to suicidal ideation.¹³ The findings of another study conducted in a public medical college revealed a significant association between suicidal ideation and self-harm and the percentage of students having suicidal ideation and self-harm tendency was reported as 34% and 12.4% respectively.²⁰

The variations in study results may be due to differences in sample size, study methodology, and screening criteria. Being a single-centered study, generalizability is not possible. For this reason, it is recommended to conduct the study in different medical and dental college settings in the province.

CONCLUSION

A high proportion of medical students were found to have suicidal ideation and anxiety/depression in the current study. Considering the findings projecting an alarming situation, strategies should be

devised to make the study load more manageable for medical students. It is suggested that a baseline health profiling of the medical students should be done at the time of admission and through subsequent years as well. Timely identification of students at risk helps to design effective interventions to counsel and treat the vulnerable ones.

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AUTHOR CONTRIBUTION

BS: Original idea and data collection

RA: Supervisor/manuscript review and editing

ZP: Article methodology and results

SA: Introduction writing

LA: Discussion writing

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