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Research Article

**SUICIDAL IDEATION AND DEPRESSION IN MEDICAL
STUDENTS AT GUJRANWALA MEDICAL COLLEGE,
GUJRANWALA**¹Dr. Anam Ilyas, ²Dr Ayza Anum, ³Muhammad Shabib Husnain Raza¹Gujranwala Medical College, Gujranwala²BHU 249GB Toba Tek singh³Bahawal Victoria Hospital**Abstract:**

The objective of the investigation was to examine suicidal ideation and depression in medical college students at GUJRANWALA MEDICAL COLLEGE, GUJRANWALA. The principle measure of depressive symptoms was the nine items depression module from the Patient Health Questionnaire (PHQ-9) for suicide. The self-administered screening instrument is based on four questions that indicate suicidal risk called Suicidal Behavioral Questionnaire (SBQ). 253 students completed the questionnaire during 1 month interval. 74.7% (189) medical students have no or mild depressions, 13.8% (35) have moderate depression and 11.5% (29) have severe depression. 83% (210) have no suicidal tendency while 17% (43) have suicidal tendency. The majority of students with moderate or severe depression were not receiving any psychiatric treatment. These results suggest that there is a strong relationship between severity of depression symptoms and suicidal ideation in medical college students. This underscores the need to provide effective mental health outreach and treatment services to this vulnerable population. As the analysis was based on data collected at a single institution, the results may not be representative of all medical college students.

Keywords: *Depressive disorders, trouble in concentration, sleep disturbances, anxiety, family history, appetite problems, stress, and suicidal risk.*

Corresponding author:

Dr. Anam Ilyas,
Gujranwala Medical College,
Gujranwala

QR code



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INTRODUCTION:

Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. (1) Depression is not the same as a passing blue mood .It involves the body ,mood and thoughts that affects the way a person eats, sleeps, feels, about himself or herself and thinks about things. (2)Suicide taking your own life is a tragic reaction to stressful life situations. (3) A person may experience a sort of tunnel vision, where in the middle of crisis he /she believe suicide is the only way out. Depression is generally agreed to be most common health problem of college students (4) and suicide is one of leading cause of death in medical students and is often associated with depression.(5) Depression disorders in adolescents and young adults may have serious developmental and functional consequences such as academic failure or persistent psychosocial problems. (6, 7, 8, 9)Attempted suicide is more frequent for women, (10) men are more likely than women to complete suicide because they typically use more effective methods such as firearm.

The Big-10 student suicide study conducted from 1980-1990 reported on annual overall suicide rate for college students of 7.5 suicides per 100,000 for age, gender, and race matched individuals in the general population. (11)The highest suicide rates were found among students over the age of 25 and those enrolled in graduate school. Analysis of the National College Health Risk Behavior Survey (NCHRBS) reveals that 11.4% of college students seriously considered suicide in the preceding 12 months, 1.7% made an attempt, 0.4% made a medically serious attempt. (12) The American College Health Association –National College Health Assessment (ACHA-NCHA) survey reports similar results with 11%of female and 9% of male respondents having seriously considered suicide in the past year. (13) We conduct the study to determine the frequency of depression and factors associated with it. (14)We further determine the reasons of depression and suicidal ideation in medical students (15) and see that how depression increase the risk suicide and affect the routine activities of a person. We characterize the perceptions of depressed and non-depressed medical students and suicidal ideation associated with depression. (16)

METHODOLOGY:

Study design is cross-sectional, conducted in Gujranwala Medical College, Gujranwala. Inclusion criteria is medical students. Exclusion criteria is non-medical students as they are not passed through stressful situations , which are faced by medical students .We collect data from almost 200 students ,

from first year to final year in almost 1 month . The screening instrument consists of PHQ9 for depression (17) and SBQ for suicidal ideation in students. PHQ-9

This self-administered screening instrument is based on nine questions that define depression .The instrument is focused on the preceding 14 days and asks ‘HOW often have you been bothered by ...?’ Each item is scored on a scale of 0-3 with 0 being not at all, 1 is equal to several days, 2=more than half the days, and 3 nearly every day .The nine individual items include little interest or pleasure, feeling down, or depressed, sleep disturbances, feelings of failure and guilt, concentration difficulty, psychomotor retardation or agitation and suicidal or self-destructive ideas. The scores of 5, 10, 15, and 20 correspond to mild, moderate, moderately severe and severe levels of depression.

SBQ-9

this self-administered screening instrument is based on four questions that indicate the suicidal risk. The four questions include ever thought or attempted of a suicide, how often thought about suicide, told someone about suicide and how likely attempt suicide. Every question has different answers so they are scaled accordingly. Q1 is scored on a scale of 1-4, Q 2 from 1-5, Q3 from 1-3, Q4 from 0-6. Add up the no. circled by student make total score. People with a score of 7 or greater than 7 considered at risk of suicide for adults in general population and people with a score of 8 or greater are considered at risk of suicide for adults in psychiatric inpatient program. All demographic features including age, gender, grade level. Hostel lite /day scholar, father’s occupation. Mother’s working status and family history were by self-report of the students. The students submitted the screening questionnaire using a self – assigned username and password. Student’s responses were automatically entered into a tabular data base. All statistical analysis were conducted after all of the data for one month interval had been collected. The PHQ9 score was also converted into five categories based on predefined anchor points with no depression (0-4) , mild(5-9), moderate(10-14), moderately severe(15-19) and severe(20 and above). As this study involved data gathering via anonymous survey, specific signed informed consent from participants was deemed not necessary. Consent is implied by the student’s completion of questionnaire.

RESULT:

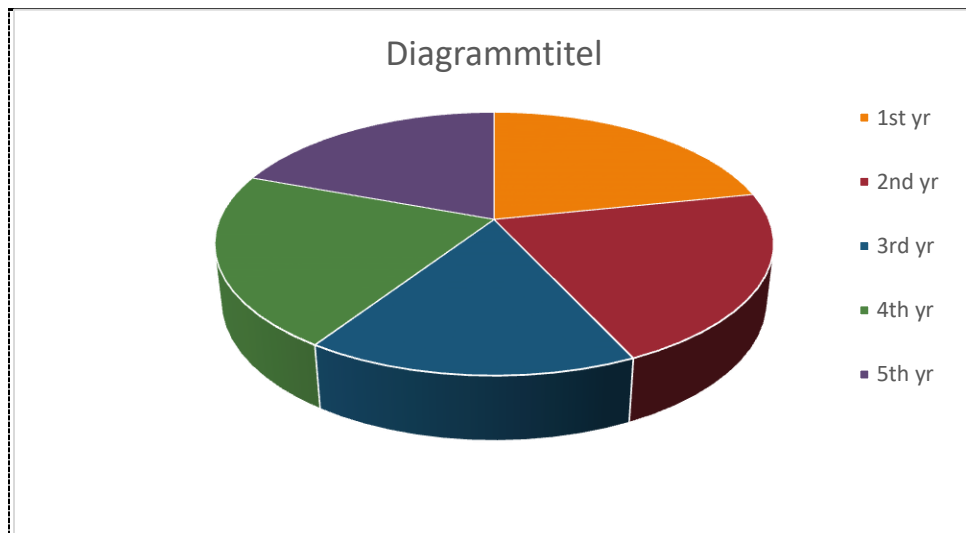
253 students completed the questionnaire during 1 year interval at whom 34.8% (88) are males and

65.2% (165) are females. There was an excess of female respondents in comparison to the general students population. As >75% of graduate population at Gujranwala medical college is female. Out of 253

students, minimum age is 17 and maximum age is 24. The students avail the facility of hostels are 184(72.7%) and those who are day scholars are 69 (27.3%)

TABLE 01

Year	Students	percentage
1st yr.	55	21.7
2nd yr.	54	21.3
3rd yr.	41	16.2
4th yr.	54	21.3
5th yr.	49	19.4
total	253	100



The result are also affected by the working status of parents. So we also collect these parameters from students. For father's occupation of students, 118(44.6%) are professional, 130 (51.4%) are self-employed and 5(2%) are not working. For mother's working status, we have 202(79.8%) housewife and 51(20.27%) are working outdoors.

TABLE 02

DEPRESSION GROUPS	FREQUENCY	PERCENTAGE
NO OR MILD	189	74.7%
MODERATE	35	13.8%
SEVERE	29	11.5%
TOTAL STUDENTS	253	100%
SUICIDAL GROUPS	FREQUENCY	PERCENTAGE
NO TENDENCY	210	83%
SUICIDAL TENDENCY	43	17%
TOTAL	253	100%

The depression levels according to gender and different classes are as follows: P Values calculated by chi-square test

TABLE 03

GENDER	NO OR MILD	MODERATE	SEVERE	P VALUE
MALE	79	3	6	0.00
FEMALE	110	32	23	0.00
TOTAL	189	35	29	0.00
Class year	No or mild depression	Moderate depression	Severe depression	P VALUE
1	31	11	13	0.00
2	46	5	3	0.00
3	36	5	0	0.00
4	50	4	0	0.00
5	26	10	13	0.00
TOTAL	189	35	29	0.00

From the table we analyze that 1st year and final year is suffering from severe depression. The suicidal and non-suicidal tendency in different class groups are out of 55 1st year students 42, 54 2nd year students 43, 41 3rd year 34, 54 4th year 52, 49 final year 39 have no suicidal tendency. 13 from 1st year, 11 from 2nd year, and 7 from 3rd year, 2 from 4th year, and 10 from 5th year have suicidal tendency. Out of 88 males, 79 have no or mild depression, 3 have moderate depression and 6 have severe depression. Out of 165 females 110 have no or mild depression, 30 have moderate depression, and 23 have severe depression. The suicidal tendency in gender distribution is that out of 88 males, 83 have no suicidal and 5 have suicidal tendency. Out of 165, 127 have no suicidal tendency and 38 have suicidal tendency. The hostel lite / day scholar distribution in depression group is that out of 69 day scholars 50 have no or mild depression, 12 have moderate depression, 7 have severe depression. Out of 184 hostilities, 139 have no or mild depression, 23 have moderate depression, and 22 have severe depression. The hostel lite/day scholar distribution in suicidal group is that out of 69 day scholar, 59 have no suicidal tendency, and 10 have suicidal tendency. Out of 184 hostel lite, 151 have no suicidal tendency and 33 have suicidal tendency.

DISCUSSION:

Depression and suicidal ideation are common in college students. Moreover, there is a prominent association between depressive symptoms and suicidal ideation in graduates. (18)The proportion of student who reported suicidal ideation was higher than that of NCHRBS and ACHA-NCHA. The NCHRBS reported that 7.9 % of college students had suicidal tendency and we have 17 % students who have suicidal tendency. (19)The ACHA-NCHA and Sharif Mustafa study reveals that 11% of female and

8 % of male participants were so depressed that it was difficult for them to function. (20, 21) It is according to our study females have more severe depression than males, we have 23 females and 6 males have severe depression.

Depression have multiple episodes. these episodes occur most of the day, nearly every day and may include : feeling of sadness, emptiness or unhappiness, angry outburst, irritability or frustration even over small matters, loss of interest or pleasure in normal activities, sleep disturbances including insomnia or sleeping too much, tiredness or lack of energy so that even small task take extra effort, changes in appetite-often reduce appetite and weight loss but increase craving for foods and weight gain in some people, anxiety, hesitation or restlessness e.g.; excessive worry, pacing, hand wringing or inability to sit still, slowed thinking, speaking or body movements, feeling of worthlessness or guilt, fixating on past failures or blaming yourself for things that are not your responsibility, trouble thinking, concentrating, making decisions and remembering things, frequent thoughts of death, suicidal thoughts, suicidal attempts or suicide, unexplained physical problems such as back pain or headaches.

Depression affect each person in different way, symptoms vary from person to person. Unfortunately, depression often goes undiagnosed and untreated and people may feel reluctant to seek help. (22) Depression often gets worse if it is not treated and lead to other mental and physical health problems. (23) It may not be possible to eliminate entirely the risk of suicide but it is possible to reduce the risk by protective factors such as social support and connectedness appear to play a significant role. (24) There may also be a genetic link to suicide. People who complete suicide or who have suicidal thoughts or behavior are more likely to have a family history

of suicide.

These data could also reflect the cognitive distortion known to occur in patients with depression(25) such that depressed students could have an inaccurate and excessively negative view of how they are viewed by other students .The data also indicate an accurate perception by depressed students that they are in fact, viewed as less capable .The findings may reflect a medical college environment in which depressed students are stigmatized because of their disease rather than on the basis of performance. In such an environment, revealing depression to friends, faculty members, and residency program directors could have real and adverse consequences. (26)

The prevalence of depressive symptoms is significantly higher in females than in male medical students, consistent with previous studies of medical students and physician. (27, 28, 29, 30, 31) .The risk of suicidal ideation was also high in female students although not reaching statistical significance. These findings are consistent with the non-increased risk of suicidal ideation as well as suicide completion in female physician (32).

Suicide in children and teenagers often follows stressful life events, what a younger person sees as serious and insurmountable may seem minor to an adult- such as problems in school or loss of a friendship. In some cases, a child or teen may feel suicide due to certain life circumstances, such as having a psychiatric disorder including depression and stigma, loss or conflict with close friends or family members, due to physical or sexual abuse, problems with alcohol or drugs, physical or medical issues, being the victim of bullying, current family or legal or financial problems. Suicidal thoughts and attempted suicide take an emotional response. Attempted suicides are impulsive acts during a moment of crisis, and they can leave with serious or severe injuries such as organ failure or brain damage. People who are survivors of suicide- grief, anger, depression and guilt are common.

Suicidal thinking does not get better on its own – so get help. Most antidepressants are generally safe but all antidepressants carry black box warnings, the strictest warnings for prescriptions. Antidepressants are more likely to reduce suicide risk in the long term by improving mood. By psychological counselling or talk therapy explore the issue that make you feel suicidal and learn skills to help manage emotions more effectively.

CONCLUSION:

We present the data to explore whether stressors from college related activities and stressors from general life experiences differ in their power to predict depression and suicidal ideation in medical college students. Students who are depressed are more likely to have suicidal ideation as are students in a state of anxiety and grief. There are several limitations to the study. (33) The first is the data are from a survey that relied on voluntary responses of the students. In this regard, it is not an accurate measure of the prevalence rates of depression and suicidal ideation in college students. There was a disproportionate response from female students possibly as a result of screening instruments emphasis on depression. A different emphasis such as anger or stress may have been better received by male students.

Although we attempted to create a multidimensional model with a comprehensive array of predictors, we did not include a number of other variables that might help to better explain suicidal ideation; e.g. stressful life events such as troubled relationships, family problems (other than conflict with parents), financial struggles and other personal, professional and academic events that have previously been linked to suicidal ideation and depression. (34, 35) The level of suicidal thoughts was high but level of attempts was low. (36)

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