

## ORIGINAL ARTICLE

# Age of Social Loneliness: Depression and Suicidal Ideation among Undergraduate Medical Students

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## ABSTRACT

**Background:** In an era of social media, the social fabric is changing day by day. The current generation of medical undergraduates have to fight in multiple dimensions and they find themselves overwhelmed.

**Objective:** To determine the suicidal ideation and depression in medical undergraduate students at public sector medical colleges.

**Methodology:** This descriptive study was carried out this study at Gujranwala Medical College, Gujranwala and Khawaja Muhammad Safdar Medical College, Sialkot from 1<sup>st</sup> September 2023 to 31<sup>st</sup> October 2023 and 253 medical students using self-administered, prevalidated questionnaire in two public sector medical colleges were enrolled. The tool contained the Patient Health Questionnaire (PHQ-9) and Suicidal Behavioral Questionnaire (SBQ) along with demographic data. PHQ-9 is a screening tool for measuring depression and consists of nine item scale.

**Results:** One hundred and eighty nine (74.7%) medical students have no or mild depression, 35 (13.8%) have moderate depression and 29 (11.5%) have severe depression. Using SBQ, 210(83%) students have no suicidal tendency while 43 (17%) have suicidal tendency. Most of the medical students facing moderate-severe level of depression were not seeking any psychiatric treatment. Both depression and suicidal ideations are strongly correlated.

**Conclusion:** The depression is moderately high among medical undergraduates and it is associated with suicidal ideation. Wellness clinics are the need of time and underscore the necessity of providing higher risk population, an efficient mental health awareness and therapeutic services.

**Keywords:** Depressive disorder, Depression, Anxiety, Stress, Undergraduate medical teaching

## INTRODUCTION

Depression is a mood disorder which is characterized as an overwhelming feeling of lack of enthusiasm and hollowness. It is quite distinct to momentarily blue mood. A person's habits, sleep patterns and self-perception is greatly influence by person's thoughts and emotions.<sup>1,2</sup> Suicide-ending one's own life is the most terrifying response to the stressful circumstances.<sup>3</sup> A person may experience a sort of tunnel vision, which usually happens because of the stigmatization of mental illness that has society created which gets maladaptive as self-stigma.<sup>4</sup> Depression has been acknowledged as the most common issue among college students.<sup>5,6</sup> It mainly predisposed by stressful life events, triggering self-injurious thoughts leading to either suicidal or non-suicidal self-injuries.<sup>7-9</sup> Women are more prone to attempt suicides but males mostly like to be finished as they use stronger tools.<sup>10</sup>

A study was conducted on suicide rates in students from the Big-10, which reported keeping the demographic variables matched, 7.5 students out of 100,000 commit suicide annually. The students from graduate schools over 25 years were more prone to suicide. According to analysis of National college health risk behavior survey (NCHRB), 11.4% of college students were serious towards committing suicide in past 12 months, 1.7% made an attempt and 0.4% tried taking life in a very alarming way to medicine.<sup>11</sup> Similar outcomes were reported by the American College Health Association–National College Health Assessment (ACHA-NCHA) survey, illustrating 11% of the female participants and 9% of male ones were thinking about taking their lives in the 12 months prior to the survey.<sup>12</sup>

Our aim to conduct this study was to assess the prevalence of depression and suicidal ideation among students of two public sector medical colleges and to determine the predicting factors. There was scarce data available regarding Depression and Suicidal ideation study among medical students in Pakistani

background.

## METHODOLOGY

This descriptive study was carried out this study at Gujranwala Medical College, Gujranwala and Khawaja Muhammad Safdar Medical College, Sialkot from 1<sup>st</sup> September 2023 to 31<sup>st</sup> October 2023. After approval from local ethical review committee, students were enrolled from both colleges. After informed consent, data was collected from the students who are not taking and psychiatric intervention (drug or therapy) without a history of suicidal attempt. The students with history of either any illicit drug use or cigarettes were excluded. Using consecutive non-probability sampling, we collected data from 253 medical students, from first year to final year. The data collection instrument contained Patient Health Questionnaire (PHQ9) for depression<sup>13</sup> and Suicidal Behavioral Questionnaire (SBQ) for suicidal ideation along with sociodemographic data.

The 9 questions of the Patient health questionnaire (PHQ-9), a self-administration tool used to assess depression. Through tool it was asked to the participants that HOW often they were bothered in the past 14 days. Each one of the items was scored as 0-3, which 0 means not at all, 1 represents several days, 2 signifies half of the days and 3 refers to almost every day. The nine specific items included self-destructive or suicidal thoughts, feelings of failure or regret, insomnia, issues while concentration, psychomotor retardation or agitation and little to no interest. The score was categorized as 0-10 for mild, 11-20 for moderate and >20 for severe level of depression.

Suicidal Behavioral Questionnaire (SBQ) is a self-administered screening tool based on four questions that indicate 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 attempted 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. For adults in general

Received on 02-11-2023

Accepted on 25-12-2023

population, the score of 7 or above is a risk factor to suicide however for psychiatric population the score is 8 or above. The demographic variables include age, gender, grade level, hostelite, day scholar and father's occupation. Mother's working status and family history were by self-report of the students. The PHQ9 score was categorized into five predefined categories with no depression (0-4), mild (5-9), moderate (10-14), moderately severe (15-19) and severe (20 and above). Specific signed consent was not necessary as data was gathered from anonymous surveys. Collected data was analyzed using SPSS 23.0. Chi square test was applied for categorical variable cross tabulation. A p value <0.05 was considered significant

## RESULTS

There are 88 (34.8%) (88) males and 165 (65.2%) females. The 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 1]. The depression levels according to gender and different classes are shown in Table 2. 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 1st year students, 11 2nd year, 7 3rd year, 24th year, and 10 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 hostelite/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 hostelites, 139 have no or mild depression, 23 have moderate depression, and 22 have severe depression. The hostelite/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 hostelite, 151 have no suicidal tendency and 33 have suicidal tendency.

Table 1: Baseline data and outcome variables among sampled population (n=253)

Variable	No.	%
Class		
1 <sup>st</sup> year	55	21.7
2 <sup>nd</sup> year	54	21.3
3 <sup>rd</sup> year	41	16.2
4 <sup>th</sup> year	54	21.3
5 <sup>th</sup> year	49	19.4
Gender		
Male	88	34.8
Female	165	65.2
Suicidal risk		
No Tendency	210	83.0
Suicidal Tendency	43	17.0
Depression		
No or Mild	189	74.7
Moderate	35	13.8
Severe	29	11.5

Table 2: Cross-tabulation between gender and class years on depression (n=253)

Variable		No or mild	Moderate	Severe	P value
Gender	Male	79	3	6	0.00
	Female	110	32	23	
Class year	1 <sup>st</sup> year	31	11	13	0.00
	2 <sup>nd</sup> year	46	5	3	
	3 <sup>rd</sup> year	36	5	-	
	4 <sup>th</sup> year	50	4	-	
	5 <sup>th</sup> year	26	10	13	

## DISCUSSION

In the present study, students having no or mild depression was 74.7%, moderate 13.8% and severe 11.5% whereas 83% of the students had no suicidal tendency and 17% had suicidal tendency. The proportion of students who reported suicidal ideation was higher than that of NCHRBS and ACHA-NCHA. It was reported by NCHRBS, 7.9% of students were prone to suicide and we have 17 % students who have suicidal tendency.<sup>14</sup> The ACHA-NCHA and Shariff Mustafa study reveals the percentage of depressed male and females are 8 and 11 respectively, and were having difficulties while performing their functions properly.<sup>15,16</sup> It is according to our study females have more severe depression than males, we have 23 females and 6 males have severe depression.

Depression has multiple episodes which usually occur nearly every day round the week. The feelings associated with are mostly being anxious, hesitate, restless like excess worrying, hand tremors, unable to sit still, slowed thinking, speaking, eating disorders, felt worthless, failure, blame oneself for the things that was not responsibility of that individual, difficult to concentrate, memorize things and even decision-making which triggers having suicidal thoughts and attempting it. Depression is a subject feeling and in most cases, it goes untreated as people stay reluctant to share.<sup>17</sup> Depression often gets worse if left untreated and lead to other psychological and physical health problems.<sup>18</sup> It may not be possible to eliminate entirely the risk of suicide but it is possible to reduce it by taking protective measures like emotional support.<sup>19</sup> Suicide can also have genetic link to it, individual who has family history would most likely to have suicidal thoughts in response to any tragic event for an easy escape to it.

The data also highlighted that depressive patient can experience cognitive distortion as students were facing negative self-image issues.<sup>20</sup> It was also assessed that depressed students got feeling of less capable to the others. This was also reflected by the findings being depressed is stigmatized in medical colleges as it affects the academic performance, therefore students stay silent to report to family, faculty or other authoritative person leading to severe consequences.<sup>21</sup> The finding of significant higher rate of depression in females than male students align with the prior studies on medical students. Also risk of suicidal identification is also higher in females yet not to significant level.<sup>22-24</sup>

Suicide in teenagers or children, followed by stressful situations which seems not to be a big issue to others like any problem in school or fight with close friends. Yet there could be some serious issues faced by younger ones leading to suicide, including any physical or sexual abuse, any psychological issue, or other medical problems, being bullied by family or friends. Attempted suicides are very momentary and impulsive response to crisis which leads to never remitting serious injuries to not only organs but also to brain. Depression, grief and guilt are the most common feelings left in suicidal survivors. Suicidal thinking does not get better on its own – so get help. Most antidepressants are generally safe, but all antidepressants carry strict instructions to be adhered to it. They usually reduce suicidal risk by improving a person's mood. One can manage such feelings by exploring relaxing techniques and psychological counselling.

Although we developed a very creative multidimensional approach to assess predictors yet very important variables that better explain suicidal ideation like, stressful event-disturbed relationships, family issues, any personal, academic or professional event.<sup>25,26</sup> The level of suicidal thoughts was high, but level of attempts was low.

## CONCLUSION

74.7% students have no or mild depression, 13.8% have moderate depression and 29% have severe depression. Depressed students are more likely to experience suicidal ideation. The main limitation of this study is data gathered by surveys-voluntary response of the students, therefore not a precise measure to assess frequency of depression and suicidal ideation among medical undergrads. As

the tool was emphasizing on depression, reposes from females were disproportionate, similarly males emphasized over anger and stress issues more.

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**This article may be cited as:** Mir KP, Zain A, Shakeel A, Maqsood M, Iqbal T, Iqbal N, Fatima N, Dar UF: Age of Social Loneliness: Depression and Suicidal Ideation among Undergraduate Medical Students. *Pak J Med Health Sci*, 2023; 18(1): 610-612.