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Suicidal ideation in college students: A comparative study of arts and medical students

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Abstract

Aim: To estimate the prevalence of suicidal ideation in this crucial group in humanities/arts and medical students and compare the two, as well as generate additional data on gender predisposition based on a self-answered questionnaire.

Materials and Methods: This is quantitative research conducted in two colleges situated in northern India. It is a cross sectional study. One of the colleges is an arts/humanities college while the other is a medical college. The consent forms were then collected following which they were given the Suicide Behaviors Questionnaire-Revised (SBQ-R) to fill.

Results: The overall prevalence was calculated and found out to be 13.5 percent in all of the college students. Furthermore, 50 students met the cutoff of equal to or more than 2 points specifically for item 1 on the questionnaire which taps into lifetime suicide ideation and/or suicide attempt which comes out to be 25 percent.

Conclusion: Before devising suicide prevention programmes, further research on prevalence, demographics, causative agents, risk factors and associated psychiatric disorders is required so as to devise an integrated system of interventions across multiple levels within society. Suicidal ideation also points to underlying psychiatric conditions like depression, bipolar disorder etc. It is important to diagnose these as early as possible.

Keywords: Psychiatric disorders, suicidal ideation, bipolar disorder, SBQ-R

Introduction

As Sigmund Freud once quoted "The mind is like an iceberg it floats with one seventh of its bulk above water", we are still bedazzled by the enigma that is our human mind years later and while other branches of medicine have seen a tremendous development in terms of understanding the pathogenesis of various diseases and development of effective modalities of diagnosis, drugs and other treatment options, psychiatry unfortunately is still considered a "pseudoscience" by many and research in this field is essentially lacking as compared to other areas.

One might want to believe that the medical community holds the field in better regard but unfortunately that isn't true either, proven by the lack of zeal amongst medical students to take up psychiatry as a post-graduation field.

Hence there has resulted a lack of faith in the usefulness of psychotherapy and of general awareness among the population pertaining to psychiatric ailments, which as a result go undiagnosed and end up tragically, more often than not in suicide, many of which can be prevented by timely diagnosis of the underlying conditions and adequate intervention and treatment. The social stigma that prevents them to seek help can also be attributed to this unawareness among the general population.

Suicidal ideation is defined as the thought of serving as the agent of one's own death; seriousness may vary depending on the specificity of suicidal plans and the degree of suicidal intent [1].

There has been an alarming increase in suicide in recent years worldwide. About 800,000 people commit suicide worldwide every year [2]. In India about 46,000 suicides occurred each in 15-29 and 30-44 age groups in 2012 [3] - or about 34% each of all suicides. Although the actual numbers may be even higher as many of the suicides and suicide attempts go unreported because it was illegal and the survivor would face jail term of up to one year and fine under Section 309 of the Indian Penal Code up until as recently as 2014 when the Indian government decided to repeal the law but many are still unaware of its decriminalization. 80% of the suicide victims were literate, higher than the national average literacy rate of 74% [4].

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Thus there is a need to lay special emphasis on these groups. The impact of a suicide or a suicide attempt by a student is also additionally highly detrimental on his/her family resulting in further distress. However, there is the absence of statistical data about prevalence of mental health among Indian adolescents, though various studies report psychiatric morbidity in the range between 14.4% and 31.7%. [5].

This study will focus on the specific age group of 18-25 and aims to estimate the prevalence of suicidal ideation in this crucial group in humanities/arts and medical students and compare the two, as well as generate additional data on gender predisposition based on a self-answered questionnaire.

Materials and Methods

This is quantitative research conducted in two colleges situated in northern India. It is a cross sectional study. One of the colleges is an arts/humanities college while the other is a medical college. Due permission from the Institutional Ethics Committee was taken before the commencement of the study.

Source of data collected

A total number of 200 students in the age group of 18-25 were enrolled for the study of which 100 students were undergraduates from a medical college and the other 100 students were from an arts/humanities college.

Inclusion Criteria; Students from medical and arts colleges

in the age group of 18-25.

Exclusion Criteria

- Students with any chronic physical ailment
- Students who do not fill the consent form

Procedure

All the participants were informed about the aims and objectives of the study and given an informed consent form to fill with instructions on how to fill it prior to inclusion in the study. The consent forms were then collected following which they were given the Suicide Behaviors Questionnaire-Revised (SBQ-R) to fill.

Assessment of data

The Suicide Behaviors Questionnaire-Revised (SBQ-R) has 4 items, each tapping a different dimension of suicidality [6].

- Item 1 taps into lifetime suicide ideation and/or suicide attempt.
- Item 2 assesses the frequency of suicidal ideation over the past twelve months.
- Item 3 assesses the threat of suicide attempt.
- Item 4 evaluates self-reported likelihood of suicidal behavior in future.

Scoring

The scoring is done based on the selected response in the questionnaire as follows

Item 1: Taps into lifetime suicide ideation and/or suicide attempts

Selected response 1	Non-Suicidal subgroup	1 point	Total points
Selected response 2	Suicide risk ideation subgroup	2 points	
Selected response 3a or 3b	Suicide plan subgroup	3 points	
Selected response 4a or 4b	Suicide attempt subgroup	4 points	

Item 2: Assesses the frequency of suicidal ideation over the past 12 months

Selected response	Never	1 point	Total points
	Rarely (1 time)	2 points	
	Sometimes (2 times)	3 points	
	Often (3-4 times)	4 points	
	Very often (5 or more times)	5 points	

Item 3: Taps into the threat of suicide attempt

Selected response 1	1 point	Total points
Selected response 2a or 2b	2 points	
Selected response 3a or 3b	3 points	

Item 4: Evaluates self-reported likelihood of suicidal behavior in the future

Selected response	Never	0 points	Total points
	No chance at all	1 point	
	Rather unlikely	2 points	
	Unlikely	3 points	
	Likely	6 points	
	Rather likely	5 points	
	Very Likely	6 points	

Psychometric properties [1, 5]

	Cutoff score	Sensitivity	Specificity
Adult General Population	>7	93%	95%
Adult Psychiatric Population	>8	80%	91%

Statistical Methods to be used

Prevalence – It is the total number of individuals having a disease in relation to a defined population. It is expressed in percentage [7].

Results

The filled questionnaires were analyzed and out of the 200 students a total of 27 students scored equal to or more than 7 points (the cutoff) on the Suicide Behaviors Questionnaire-Revised (SBQ-R) indicating a significant risk of suicidal behavior. The overall prevalence was calculated and found out to be 13.5 percent in all of the college students. Furthermore, 50 students met the cutoff of equal to or more than 2 points specifically for item 1 on the questionnaire which taps into lifetime suicide ideation and/or suicide attempt which comes out to be 25 percent. Further analysis was done separately for the two colleges and results were as under:

Arts/Humanities College

- Out of the 100 students that participated in the study from the college, 38 participants were male and 62 participants were female.
- 10 percent students showed a significant risk of suicidal behaviour [overall score equal to or more than 7] - 7.89 percent (3/38) males as opposed to 11.29 percent (7/62) females.
- 23.68 percent (9/38) males and 27.42 percent (17/62) females were found to have had lifetime suicide ideation and/or suicide attempt [score equal to or more than 2 in item 1].

- 18.42 percent males (7/38) and 24.12 percent (15/62) females thought about killing themselves in the past year alone at least once or more.
- 2 males and 3 females ever told someone that they were going to commit suicide or might do it.
- 1 student reported future likelihood of committing suicide- a male.
- Medical College
- Out of the 100 students that participated in the study from the college, 51 participants were male and 49 participants were female.
- 17 percent students showed a significant risk of suicidal behaviour [overall score equal to or more than 7] - 17.65 percent (9/51) males as opposed to 16.33 percent (8/49) females.
- 19.6 percent (10/51) males and 28.57 percent (14/49) females were found to have had lifetime suicide ideation and/or suicide attempt [score equal to or more than 2 in item 1].
- 13.72 percent males (7/51) and 22.45 percent (11/49) females thought about killing themselves in the past year alone at least once or more.
- 11 males and 10 females ever told someone that they were going to commit suicide or might do it.
- 7 student reported future likelihood of committing suicide- 6 males and 1 female.

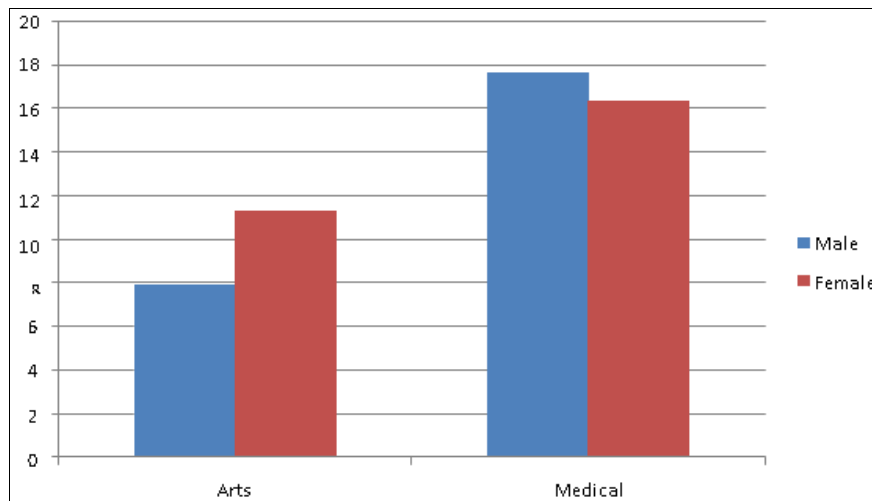


Fig 1: % age of students who scored above cutoff

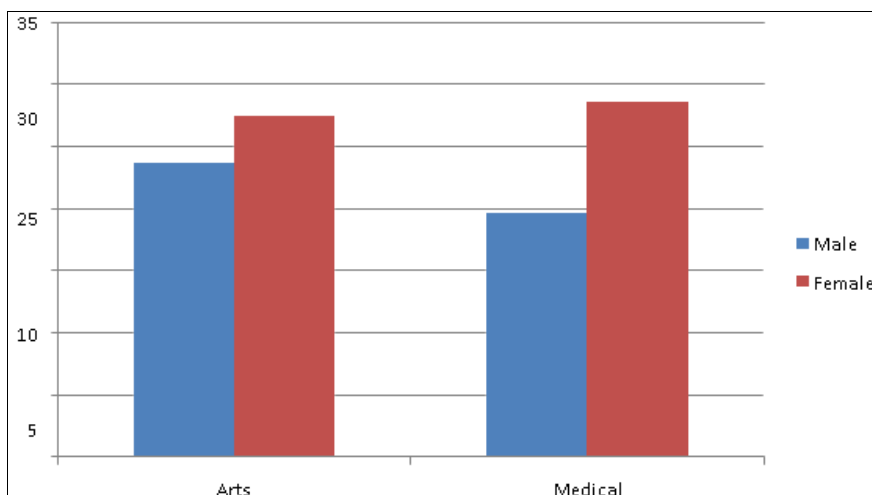


Fig 2: Lifetime suicide ideation and/or suicide attempt

Discussion

13.5 percent of all of the college students scored above the cutoff. These students are at a significant risk of suicidal behaviour. However, these figures vary greatly amongst Arts College and medical students as 10 percent of the arts students as opposed to 17 percent of the medical students scored above cutoff. [Fig. 1] This is in concordance with the fact that medical students experience significantly higher levels of stress, depression and anxiety compared to their counterparts in arts and engineering colleges as found out in the study conducted by Singh R *et al.*

It is interesting to note that while such a difference exists between the two groups of students today, the percentage of students who showed lifetime suicidal ideation [overall 25 percent in all students] was comparable in both the colleges [Fig. 2] with the arts college students showing even slightly higher numbers [Arts- 23.68 percent males and 27.42 percent females; Medical- 19.6 percent males and 28.57 percent females] indicating that in the past, no significant difference existed between the two groups in regard to suicidal behaviour.

Furthermore, in the arts college, more proportion of females scored above cutoff (11.29%) as compared to males (7.89%); more females were found to have had lifetime suicide ideation and/or suicide attempt (27.42%) as compared to males (23.68%) and more females thought about killing themselves in the past year at least once or more (24.12% as opposed to 18.42% of males). Hence it can be said that females thought about killing themselves more often than males.

However, the only one student that reported the future likelihood of committing suicide was a male leading us to believe that while females are more prone to suicidal thoughts and behaviour, males are more likely to attempt it. This observation is supported by the fact that more males die of suicide as compared to females. In India, the overall male: female ratio of suicide victims for the year 2014 was 67.7:32.3^[9].

In the medical college, such a gender disparity was not so obvious as the proportion of males and females that scored above cutoff was comparable (16.33% females and 17.65% males). Although the results for lifetime suicide ideation and/or suicide attempt were along the same lines as in Arts College with 28.57% females found to have had it as opposed to 19.6% males. Similarly, more females (22.45) thought about killing themselves in the past year as compared to males (13.72) just as observed in the arts college.

The self-reported likelihood of committing suicide in future was found to be much higher than Arts College with a total of 7 students- 6 males and 1 female.

Another significant observation that emerged was that while in the arts college only 5 students (2 males and 3 females) ever told someone that they were going to commit suicide or might do it while in the medical college a total of 21 students (11 males and 10 females) talked about it. This is most likely a result of less stigma attached to suicide and more awareness of psychiatric disorders amongst medical students arising from their education enabling them to talk about such issues more freely and seek help.

Conclusion and recommendations

Students form the backbone of our society for eventually they will contribute to the social well-being as doctors,

teachers and lawyers etc. While academic stress is an indispensable part of a student's life, suicides however, are largely preventable.

But before devising suicide prevention programmes, further research on prevalence, demographics, causative agents, risk factors and associated psychiatric disorders is required so as to devise an integrated system of interventions across multiple levels within society. This study included only 200 students in a northern Indian set up. Thus, a small sample size is the limitation of the study but it revealed high figures for suicidal behaviour among both arts and medical colleges. To combat that, various measures like friendlier student faculty relationship, introducing more extracurricular activities including sports, organizing awareness programmes and support groups etc. should be devised.

Suicidal ideation also points to underlying psychiatric conditions like depression, bipolar disorder etc. It is important to diagnose these as early as possible. However early diagnosis is not always possible mainly because of unawareness in the general population as well as the stigma attached to psychiatric disorders.

Thus, a lot of work still needs to be put in this area so as to tackle this public health problem efficiently to save countless young lives.

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