

Attitude towards suicide among medical students in a medical college of rural South India**Sharadha Naveen R¹, Vinuprasad Venugopalan^{2*}**¹ Associate Professor, Department of Psychiatry, P. K. Das Medical College, Kerala, India² Associate Professor, Department of Psychiatry, P. K. Das Medical College, Vaniamkulam, Kerala, India

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ABSTRACT

Background: Suicide is a psychiatric emergency. It contributes for substantial portion of preventive deaths. Medical professionals bear responsibility of providing optimal primary care to a suicidal person and reducing stigma towards suicide. Their attitudes towards suicide or a suicidal person determines the quality of care given to them. This study attempts to quantitatively assess attitudes of undergraduate medical students towards suicide and a suicidal person. **Materials and methods:** This cross-sectional study was conducted in a medical college hospital of Kerala. Total 287 first & second year medical students who were not exposed to psychiatry teaching were recruited for the study by total enumeration method. Eskin's attitude towards suicide scale (E-ATSS) and Eskin's Social Reactions to Suicidal Persons Scale (E-SRSPS) were administered. Responses were collected in 5 point likert scale ranging from 'completely disagree' to 'completely agree'. **Results:** On E-ATSS, Communicating psychological problems had a high mean score with minimal standard deviation (4.25 +/- 0.35) & acceptability of suicide scored the least (1.46 +/- 0.62) while the social acceptance of a suicidal person & helping had high scores (4.34 +/- 0.82, 4.28 +/- 0.23) on E-ATSPS. **Conclusion:** Students participated in this study have more of rejecting attitudes towards suicide. But less than half of them take it as a sign of mental illness. When it comes to attitude towards a suicidal person, our medical students have a very high acceptance score and also are ready to help them. Studies involving students who complete undergraduate psychiatry training will help to know about the change that the training brings into the attitudes.

Key words: Attitude, Suicide, Medical students.

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INTRODUCTION

Suicide is responsible for substantial number of preventive deaths. About 800000 suicide deaths occur every year, to which India contribute to 17% of them. Suicide occurs throughout the lifespan and was the second leading cause of death among 15–29-year-olds globally in 2014. Over 78% of global suicides occurred in low- and middle-income countries in 2014. Number of suicide attempts are even more and terrifying. Suicide results from many complex sociocultural factors and is more likely to occur during periods of socioeconomic, family and individual crisis.^[1] Medical students as future doctors play an important role in prevention of suicide.

Their personal & professional skills in management of suicide need to be refined and perfected. As these students come from varied socio-economic and cultural backgrounds, the pre-existing attitudes call for a detailed assessment. If the attitudes are not conducive, then proper interventions at this period of training can be planned rightly. Maybe as an occupational hazard, doctors are at a higher risk of suicide compared to general population. Schernhammer et.al^[2] in their meta-analysis state that studies on physicians' suicide collectively show elevated suicide rates compared to general population. Thus it is important to have the right attitude towards suicide in helping suicide attempters and also to spread awareness and reduce stigma. Being in a profession with greater risk of suicide, they should have the attitude which helps them to stay away from suicidal behaviours and to help their colleagues who may suffer the same. There were studies from around the globe^[3-5] and also from India^[6,7] which measured the attitude of medical students towards suicide. Here we attempt to measure the

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attitude of medical students who are yet to be exposed to their studies in psychiatry.

MATERIALS AND METHODS

Ours is a cross-sectional study of 300 students doing MBBS course in a medical college hospital in rural Kerala. These students were selected by total enumeration method. They were yet to attend their psychiatry clinical postings or lecture classes. Permission for the study was taken from the ethics committee of the medical college. After obtaining written informed consent, socio- demographic details and their responses to Eskin's Attitudes towards Suicide Scale (E-ATSS) and Eskin's Social Reactions to Suicidal Persons Scale (E-SRSPS) were collected. Socio demographic pro forma included age, gender, history of mental illness and history of suicide attempts. Total 287 out of 300 students completed the questionnaires E-ATSS &E-SRSPS. Permission was taken from Dr.Mehmet Eskin via email to use these scales for this study.

Eskin's Attitudes towards Suicide Scale (E-ATSS)

Eskin's Attitudes towards Suicide Scale (E-ATSS) is a validated instrument used for quantitative assessment of attitude towards suicide. It consists of 24 statements about students' opinions and attitudes towards suicide and psychological issues. Participants responded to these statements on a 5-point Likert scale ranging from "Completely disagree (1)" to "Completely agree (5)". These 24 items give information under six factors.

Factors are acceptability of suicide, punishment after death, suicide as a sign of mental illness, communicating psychological problems, hiding suicidal behaviour and open reporting and discussion of suicide. Total score under each factor is calculated by summing the total score of all items under that factor and then dividing it by the number of items.

Eskin's Social Reactions to Suicidal Persons Scale (E-SRSPS)

Eskin's Social Reactions to Suicidal Persons Scale (E-SRSPS) measures attitude towards a suicidal person. Items are framed as statements about an imaginary friend who is suicidal. There are total 20 items under four factors i.e, social acceptance, social rejection and disapproval of suicidal disclosure, helping a suicidal friend and inquiry and emotional involvement. Comparable factor scores were calculated. The means, standard deviations & proportions for each group were tabulated.

RESULTS

The participants were the students in their first & second year of MBBS who were not exposed to psychiatry classes or postings. There were 106 male and 181 female students in our study population. They were all aged between 17-19 years of age. Communicating psychological problems had a high mean score with minimal standard deviation. Acceptability of suicide scored the least while the social acceptance of a suicidal person & helping had high scores as seen in [Table 1 & 2].

Table 1: Eskins attitude towards suicide scale

Factors	Mean	Standard deviation
A1 acceptability	1.46	0.62
A2 punishment	2.95	1.19
A3 mental illness	3.15	2.12
A4 communication	4.25	0.35
A5 hiding	2.68	0.70
A6 open discussion	2.96	1.06

Table 2: Eskins attitude towards suicidal person scale

Factors	Mean	Standard deviation
B1 social acceptance	4.34	0.82
B2 helping	4.28	0.23
B3 disapproval	2.67	1.83
B4 emotional involvement	3.78	0.90

Table 3: Proportions of E-ATSS

Statements Total/Male/F emale	A1 Acceptance	A2 Punishment	A3 Illness	A4 Communication	A5 Hiding	A6 Open discussion
Completely disagree	76(27%)	17(6%)	19(7%)	1(0.3%)	38(13%)	22(7.6%)
	22(20.8%)	5(4.7%)	2(1.8%)	1(0.9%)	12(11.3%)	12(11.3%)
	54(29.8%)	12(6.6%)	17(19.4%)	0	26(14.4%)	10(5.5%)
Do not agree	176(61%)	64(22%)	47(16%)	8(2.8%)	74(26%)	60(21%)
	62(58.4%)	27(25.5%)	20(18.8%)	2(1.8%)	25(23.5%)	28(26.5%)
	114(63%)	37(20.4%)	27(15%)	6(3.3%)	49(27%)	32(17.6%)
Undecided	32(11%)	72(25%)	83(29%)	10(3.5%)	93(32%)	87(30.4%)
	20(19%)	25(23.5%)	29(27.4%)	5(4.7%)	31(29.2%)	36(34%)
	12(6.6%)	47(26%)	54(29.8%)	5(2.7%)	62(34.2%)	51(28.2%)
Agree	2(0.7%)	79(28%)	88(31%)	87(30.4%)	65(23%)	85(29.6%)
	1(0.9%)	30(28.3%)	34(32%)	31(29.3%)	28(26.5%)	24(22.6%)
	1(0.6%)	49(27%)	54(29.8%)	56(31%)	37(20.4%)	61(33.7%)
Completely agree	1(0.3%)	55(19%)	50(17%)	181(63%)	17(6%)	33(11.4%)
	1(0.9%)	19(18%)	21(20%)	67(63.3%)	10(9.5%)	6(5.6%)
	0	36(20%)	29(16%)	114(63%)	7(4%)	27(15%)

In our study, students do not have a permissive attitude towards suicide (88% of them have a restrictive attitude). Though 47% believe that it is punishable & a sin and 48% believe that it is a sign of mental illness, 93.4% are of the strong opinion of communicating psychological problems & hence of seeking help as shown in Table 3. Regarding hiding information about suicide, open discussion & reporting of suicide, there is no clear mandate. Upon further categorization of

attitude towards suicide data into male & female sets, as depicted in Table 3, more females than male students: 92.8% vs 79.2% had a negative attitude towards suicide. Both students were similar in terms of punishment & communicating problems. More females (20.6% vs 34.4%) disagreed of suicide as a sign of mental illness & also in hiding suicidal information (34.8% vs 41.4%) while they (28.2% vs 48.7%) agreed more on open reporting & discussion of suicide.

Table 4: Proportions of E-ATSPS

Statements Total/Male/Female	B1 Social acceptance	B2 Helping	B3 Disapproval of disclosure	B4 Emotional involvement
Completely disagree	1(0.35%)	0	2(0.7%)	0
	1(0.9%)	0(0%)	2(1.8%)	0(0%)
	0	0	0	0
Donot agree	2(0.7%)	1(0.3%)	58(20%)	10(3.5%)
	1(0.9%)	1(0.9%)	25(23.7%)	9(8.5%)
	1(0.6%)	0	33(18.3%)	1(0.5%)
Undecided	5(2%)	4(1.4%)	148(51.5%)	40(31.5%)
	3(2.8%)	2(1.8%)	50(47.2%)	16(15.1%)
	2(1.1%)	2(1.1%)	98(54.1%)	24(13.3%)
Agree	90(31%)	88(30.7%)	74(25.8%)	147(51%)
	33(31.1%)	40(37.8%)	26(24.5%)	55(51.9%)
	57(31.4%)	48(26.5%)	48(26.5%)	92(50.8%)
Completely agree	189(66%)	194(67.6%)	5(2%)	90(31%)
	68(64.3%)	63(59.9%)	3(2.8%)	26(24.5%)
	121(66.9%)	131(72.4%)	2(1.1%)	64(35.4%)

When it comes to attitude towards a suicidal person, our medical students have a very high acceptance score and also are ready to help them as evident in Table 2. But they are not fully agreeable to a suicidal person disclosing their ideas/plans about suicide with higher variation. They are reacting emotionally to this person which shows they are naïve about role of medical personnel in such events. Table 4 gives the proportion

of responses for the attitudes towards a suicidal person. A overwhelming 97% students were accepting a suicidal person socially i.e., have less stigmatising attitude, 98.3% were willing to help and 82.5% felt the need for emotional attachment to such persons. Nearly half the participants were not sure of whether the information about suicide needs to be disclosed.

Table 5: Proportions with h/o illness/suicide

Variables	Yes	Proportion
History of mental illness	6	2%
History of suicidal attempt	4	1.4%
Family history of mental illness	11	3.84%
Family history of suicide/attempt	15	5.22%

Very less reporting of personal/family history of suicidal behaviour or mental illness was noted.

DISCUSSION

In this study, we want to know the attitudes towards suicide & a suicidal person of medical students in their early years of MBBS, prior to exposure of teaching in psychiatry. The received data helps to understand the basic knowledge these medical students from varied background have about the suicide and a suicidal person. On this basis, planning in terms of handling the contextual factors affecting the formation of attitudes towards suicide (E-ATSS) & attitudes towards a suicidal person (E-ATSP) can be done. Past research has revealed several factors affecting the development of these attitudes. Some of them are: Age, Gender, Socio-economic status, Area of living, Religion / religious education, Knowledge of suicide, Family history of suicide and psychiatric illness, History of Psychiatric illness or suicidal behaviour, Stressful life events, personality styles, Substance use, etc. Several studies have established the role of attitudes towards suicide and a suicidal person in seeking professional help for self and others. The positive evidence for increased suicidal risk with accepting ATSS and rejecting E-ATSPS adds to the need for development of new prevention models of problematic attitudes. The unique benefit in targeting this population of medical students lies in the fact that these are the future providers of help to self and the community. In an Indian study by Nilamadhab Kar et al 2015, acceptability of suicide as an option was considered by 29.7%, 66.2% believe it is a sin.^[8] In our study, students do not have a permissive attitude towards suicide (88% of them have a restrictive attitude). Though 47% believe that it is punishable & a sin, another 48% believe that it is a sign of mental illness. A huge majority (93.4%) are of the strong opinion of communicating psychological problems & hence of seeking help as shown in Table 3. Regarding hiding information about

suicide, open discussion & reporting of suicide, there is no clear mandate. The stigma around the word 'suicide' & lack of information about dealing with the event of suicide from a medical point of view is evident. This indicates the need for educational interventions at this stage of MBBS when they start their clinical postings. Arya et al 2015 & Thornhill et al 2000 report that inadequate knowledge about suicide and suicidal behaviour leads to permissive or neutral attitudes towards suicide.^[9,10] Tarun Mene et al in an Indian study from Arunachal Pradesh, Peltzer, Cherian et al 2000, Eshun et al 2003 demonstrated that acceptable or positive ATTS were often found prior to suicidal ideation/behaviour.^[11,12,13] According to Eskin, permissive attitude towards suicide is highly associated with suicidal behaviours. This attitude reduces chances of seeking help and receiving understanding & compassion from society & others. Preventive strategies should focus on awareness & replacing negative attitudes with positive attitude of accepting life & prevent development of suicidal thoughts. Arnautovska, Zemaiteiene & Zaborski et al 2005, Zhang & Jia et al 2009, Colucci et al in his study found similar conclusions. Identification of risk groups, warning signs of potential risk will definitely aid in prevention.^[14-18] Upon further categorization of attitude towards suicide data into male & female sets, as depicted in Table 3, more females than male students: 92.8% vs 79.2% had a negative attitude towards suicide. Both students were similar in terms of punishment & communicating problems. More females (20.6% vs 34.4%) disagreed of suicide as a sign of mental illness & also in hiding suicidal information (34.8% vs 41.4%) while they (28.2% vs 48.7%) agreed more on open reporting & discussion of suicide. Females have a more positive and accepting attitude towards suicide than males as found in studies by Arya

et al, Thornhill et al, Arnautovska et al^[9,10,15] Abbott et al & Bhuiyan et al revealed no association between gender and attitude, but highest score on permissiveness was found in Bhuiyan's study.^[19,20] When it comes to attitude towards a suicidal person, our medical students have a very high acceptance score and also are ready to help them as evident in Table 2. But they are not fully agreeable to a suicidal person disclosing their ideas or plans about suicide with higher variation. They are reacting emotionally to this person which shows they are naïve about role of medical personnel in such events. Table 4 gives the proportion of responses for the attitudes towards a suicidal person. A overwhelming 97% students were accepting a suicidal person socially i.e., have less stigmatising attitude, 98.3% were willing to help and 82.5% felt the need for emotional attachment to such persons. Nearly half the participants were not sure of whether the information about suicide needs to be disclosed. These responses again stress the lack of awareness & need for educating our students in handling cases of suicide/attempt/ideas at the first level of personal & professional contact with them, in which case they will be able to help in efficient ways. Adelino Pereira et al 2018 reported greater stigmatizing attitudes in males.^[21] In this Portuguese study, a larger proportion of male participants than of female participants considered that people who die by suicide are weak, cowards and that suicide is a shameful/sinful act, although 100% of respondents considered that psychotherapy is important for individuals who attempted suicide in order to understand their inner motivations. Batterham et al 2013, Bjerkest et al 2008 pointed out that men are more reluctant to seek help for suicide-related problems, men hold more negative & stigmatising (stupid/coward) attitude towards suicide than women.^[22,23] Some studies found men are more tolerant (Arnautovska et al), men have pro-preventive attitudes towards suicide (Poreddi et al 2016) & show less negative appraisals towards suicidal person. It is also possible to find studies suggesting that gender has no impact on stigmatising attitudes toward suicide.^[14,15,24,25] Though attempted suicide is decriminalized in India in 2017, suicide continues to be strongly stigmatized. Arya S from India found that majority of the adolescents had restrictive attitude in which he expresses restrictive attitude means rejecting the right to commit suicide.^[9,26] Some studies suggest a reduction of stigma towards suicide (Witte, Smith, & Joiner, 2010), the majority of studies have found high prevalence of stigmatizing attitudes towards suicidal persons^[27,28,29,30] In Eskin's cross-cultural study, he found that Austrian students had more permissive and liberal attitudes

towards suicide, while those of Turkish students were more rejecting.^[14] Conversely, attitudes of Turkish medical students towards an imagined suicidal close friend were more accepting than those of Austrian medical students. Similar finding was reported by Abbott C in his study, he mentioned that samples had more of conventional attitude stating suicide is not a healthy decision and it has to be prevented.^[20] Colucci E, Minas H carried out a cross sectional study to find the attitudes of youth by comparing Italian, Indian and Australian students. The results indicated more of negative attitudes towards suicide and people who commit suicide in India and Australia than Italy.^[18] Coming to data regarding attitude towards suicidal person, when we compare male & female responses, we find that majority of both male and female students are ready to include a suicidal person socially & are willing to help them. Half of both genders (47.2%/54.1%) were undecided on disclosure of information & more females (27.3%/18.3%) disapproved among rest and more females (76.4%/86.2%) were agreeing to emotional attachment. In the study by Lake et al, Suicidal students and students at higher risk of suicide were more likely than non suicidal and lower risk students to endorse attitudes supporting their perception of suicidality as something that can happen to anyone.^[31] The vast majority of all students rejected the idea, that most students who kill themselves are mentally ill. Nebhinani et al in his study with Indian medical students observed that nearly half of the students' opined lack of disclosure of suicidal intent by suicide attempters and one-third of the students considered unemployment and poverty as the main causes of suicide.^[8] Half of the students were not comfortable in suicide risk assessment (girls > boys). More than half of the students acknowledged their role for suicide prevention. However, only half of them had positive attitude toward working with suicidal patients. In a study from 115 medical students by Amiri L et al, it was found that they had very low acceptability of suicide, strong beliefs in punishment after death & were highly endorsing of communication of psychological problems.^[5] Wallin et al in his comparative study between first & final year students to determine whether attitudes toward suicide differ in beginning/end of studies, got results showing that knowledge of mental disorders and biological aspects of behaviour (medical model) during medical education do influence the ATTS.^[4] It was also evidenced that students with history of suicide were less optimistic of possibility to help and thought that people attempting suicide were not responsible for their action. Domino G et al in his comparative study of

Japanese & American medical students indicated that the scores for right to die by suicide i.e., acceptance was high in Japanese students than American students.^[32] This could be attributed to cultural beliefs in Japan of suicide as a honourable solution to personal guilt & failure. In another Japanese study by Sato R et al, it was revealed that critical comments reduced with amount of years in medical school.^[33] A Serbian study by Basic S, Lazarevic et al displayed a stress model of suicide. Students felt suicide is about suffering & not about death however majority believed in the preventability of suicide.^[34] Etzersdofr, Vijayakumar et al compared ATTS held by medical students in Madras with those in Vienna. It was noticed that Indian students rejected the right to suicide (restrictive attitude) & assisted suicidal person to a greater degree than students in Vienna.^[7]

CONCLUSION

Students participated in this study have more of rejecting attitude towards suicide. But less than half of them take it as a sign of mental illness. And a significant number of them take it as sin maybe because of their religious upbringing. However it is encouraging that majority of them do encourage communication of suicidal ideation and seeking help. Majority of our students are ready to include a suicidal person socially & are willing to help them.

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Limitations and future directions

Our study sample consisted of students of a single institution. However they come from different strata of society. We have not considered factors like religion, socioeconomic background etc in the analysis. Reporting of history of suicidal attempt or psychiatric illness in self and family members was very minimal for statistical comparison. It would be interesting to know what changes does the present medical curriculum brings to the attitude towards a sensitive social issue like suicide. A structured training program to address faulty attitudes and equip them with right management techniques should be incorporated in the proposed curriculum. Hopefully a study involving students who undergo undergraduate training in psychiatry can throw light into that.

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