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Attitude and help-seeking behavior towards suicide among medical students in Jammu and Kashmir

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Abstract

Introduction The ongoing training process and medical curriculum of the medical profession are crucial for equipping them with necessary knowledge and skills, but it can also be challenging to balance the demands of a busy learning schedule, making this period stressful. This study has been aimed to determining the attitude towards suicide and their help-seeking behavior among medical undergraduates in the union territory of Jammu and Kashmir (J&K).

Methodology Across medical colleges of the J&K region, an online survey was conducted among 275 medical undergraduates using Attitude Towards Suicide Scale-20 and General Help-Seeking Behavior Questionnaire. An independent sample *t*-test and one-way ANOVA were carried out for statistical analysis in SPSS 25.0.

Result The mean age of the participants was 22.05 years, including 116 male and 159 female students. Psychiatry posting was attended by 31.3% ($N=86$) students. Students showed greater acceptability over suicide is preventable, and it is a cry for help. For personal and emotional problems, subjects preferred seeking help from informal sources, while for suicidal ideations, they exhibited inclination towards formal sources.

Conclusion Findings of the result should be utilized in preventing negative mental health consequences and in planning assistance to them. Medical students within the institution should receive counselling services from the psychiatry department in a non-stigmatizing manner.

Keywords Suicide medical students, Help-seeking medical student, Suicidal attitude

Introduction

Suicide is one of the most common preventable cause of death. Annually, almost 700,000 persons die due to suicide, ranking it as the 17th leading cause of mortality, worldwide [1]. Data from India indicates 170,924 persons had committed suicide in 2022, which was highest since 1967 [2]. The union territory of Jammu and Kashmir recorded highest cases of attempted suicide, of 497 out of 1769 cases [2, 3]. According to the World Health Organization (2019), suicide was the fourth leading cause of death for persons between the ages of 15 and 29 in 2019 [1]. In India, 35% of recorded suicides occurred in age group of 15 to 24 years [4]. The recorded yearly

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youth suicide rates in India are 80 per 100,000 for females and 34 per 100,000 for males, in comparison to the general Indian population's average of 10.4 per 100,000 [4]. The statistics reports lifetime prevalence of 2.19% and 12-month prevalence of 1.64%, suicide attempts among medical fraternity [5]. However, suicidal ideation among medical students was ranged from 1.8 to 53.6% [6]. Approximately, 64 medical students and 58 postgraduate students had committed suicide within last 5 years in India [7].

Actual data may be underreported and clearly does not indicate suicide attempts which can help us in analyzing the alarming and rising premature death concern in the young. India being the most populous country in the world with a bright concentration of young generation makes it important to prevent such loss of lives.

Considering medical profession, India being the most populated nation in the world, also happens to have one of the highest concentrations of physicians. In general, apart from academic stress, medical students tend to suffer because of other associated factors. It includes daily workload, frequent examination, less recreational period of self, and high expectation and demands from family members and society. Many of them has encountered emotional burnout. Addiction to drugs, inadequate coping mechanisms, exhaustion, debt, and the perception of social stigma of asking for assistance are among the problems that put medical personnels at greater risk. Studies have examined the characteristics of doctors' personalities that may raise their risk of mental health problems, including uncertainty, feelings of guilt, an excessive sense of duty, perfectionism, an excessive commitment to their work, and an inability to take breaks [8, 9].

The medical curriculum can impact psychological health of students promoting to development of stress, anxiety, and depression [10]. A study was done among Chinese medical students which revealed academic pressure as one of major risk factor for suicide [11]. Another study that investigated medical students suicidal and general help-seeking behaviors found that because of their stigmatizing beliefs, they were less likely to seek out formal aid or intervention for suicide and instead preferred to seek out informal help [12].

Long working hours, harsh work environments, the frustration of not being able to save lives, and isolation from family members have all had a negative impact on the mental health of physicians which has been more evident since the COVID pandemic [13]. As medical students in Indian healthcare setup are facing more challenging and risky environment handling patient load of the most populous country in the world along with balancing academic workload, it has now become more

important to understand help-seeking behavior and attitude towards suicide in them.

Methodology

It was a cross-sectional study that involved medical undergraduates across medical colleges in the Jammu and Kashmir Union Territory. This study was conducted from November 2023 to April 2024, and participants were recruited via convenience sampling. A participant information sheet explaining details about the study and the consent form in which they indicated their decision to participate in this study were given in an online Google Form, which was shared with their common WhatsApp group. The Institutional Review Board of Government Medical College, Srinagar, Jammu and Kashmir, India, granted approval for this study. The reporting of this study was done in accordance with Checklist for Reporting Results of Internet E-Surveys (CHERRIES) guidelines [14]. The online Google Form was open (no password or user login was required to access it), and the submitted response was restricted to only investigators. The survey was voluntary and did not offer any monetary or nonmonetary incentives to the participants. Participants were given the option to review and change their answers if they wanted, which was given via an inbuilt feature of Google Forms. This study did not check individual IP addresses or use cookies. No statistical correction was applied, and log file analysis was not applicable.

The first form consisted of basic sociodemographic details: age, gender, religion, socioeconomic status, college year in which they are studying or undergoing an internship, any family history of psychiatric illness, or attending a psychiatry rotatory posting at a hospital. The Attitude Towards Suicide (ATTS) questionnaire [15] (20 items) [16] was used to evaluate individuals' attitudes towards suicide, and the General Help-Seeking Behavior Questionnaire (GHSQ) [17] was employed to examine their general help-seeking behavior.

ATTS has been used in the past for various studies and is a valid assessment questionnaire for studying attitude, suicidal tendencies, belief, and perception towards suicide. The ATTS consists of 37-item Likert scale chart ranging from 1 (strongly disagree) to 5 (strongly agree). Revised version of this scale by Park Ji et al. [16], ATTS-20, consisting of 20 items rated on similar Likert type scale which was grouped from original ATTS has been used in this study. The items of the questionnaire were grouped into seven domains [18]: suicide is acceptable, suicide is preventable, suicide is common, suicide is unpredictable, suicide is a cry for help, and attempts due to revenge and punishment and suicidal thoughts will never disappear.

The GHSQ has two subscales categorizing formal and informal help-seeking sources, comprising a Likert scale ranging from 1 (extremely unlikely) to 7 (extremely likely), employing hypothetical scenarios in which people indicate their choice of whom they will approach in case of personal and emotional problems and suicidal thought [19]. We classified individual options such as intimate partners, friends, parents, and relatives as informal sources, while we categorized mental health professionals, doctors, religious leaders, and phone/helpline as formal sources. We maintained separate headings for seeking help from others and seeking help from none at all.

In order to preserve the integrity of the original data, we have kept outliers in the study as entered. We summarized continuous variables as mean and standard deviation (SD). The chi-square test was used to test the relationship between two variables, and the Pearson correlation coefficient was used to assess the relationship between two continuous variables. An independent *t*-test and a one-way ANOVA were used to test the difference between different variables across different domains of attitude towards suicide. Analysis was done using SPSS 25.0 (IBM Corp.). Two-sided *p*-values are reported, and *p*-values < 0.05 were considered statistically significant.

Result

A total of 275 students participated in this study, which consisted 116 (42.2%) males and 159 (57.8%) females, with predominant participation from first-year and internship students. The population's mean age was 22.05 years, ranging from 17 to 28 years old, with the majority (*N*=166, 60.4%) practicing Islam. A positive family history of a psychiatric illness was present in 19.6% (*N*=54) of the students, and 31.3% (*N*=86) had attended their psychiatry posting.

In the ATTS, students showed a major agreement over suicide is preventable (mean=3.81), suicide is a cry for help (mean=3.77), and least score for suicide is acceptable (mean=2.20) domain with rest of the mean and standard deviation of other domain presented in Table 1.

Table 2 indicates preference for informal sources (mean=4.16), including intimate partners, friends, parents, and relatives, for seeking help in cases of personal and emotional problems while opting for formal sources (mean=4.14), including mental health professionals, doctors, phone/helpline, and religious leaders, in cases of suicidal ideation. Figures 1 and 2 provide an error bar-based visual representation of individual help-seeking sources for personal and emotional problems and suicidal ideation, respectively.

Table 3 presents a detailed analysis of the ATTS domains, which include social and demographic factors.

Table 1 Mean and SD of ATTS domains

| Domain | Mean ± SD |
|--|-------------|
| Suicide is acceptable | 2.20 ± 0.65 |
| Suicide is preventable | 3.81 ± 0.54 |
| Suicide is common | 3.42 ± 0.62 |
| Suicide is unpredictable | 2.80 ± 0.66 |
| Suicide is a cry for help | 3.77 ± 1.11 |
| Attempts due to revenge and punishment | 3.65 ± 0.83 |
| Suicidal thoughts will never disappear | 2.54 ± 0.97 |

Table 2 Mean and SD across General Help seeking Questionnaire

| GHSQ | Personal and emotional problem, (mean ± SD) | Suicidal ideation, (mean ± SD) |
|------------------------------|---|--------------------------------|
| Informal source | 4.16 ± 1.06 | 4.05 ± 1.15 |
| • Intimate partner | 4.96 ± 1.76 | 4.93 ± 1.68 |
| • Friend | 3.66 ± 1.72 | 3.79 ± 1.66 |
| • Parent | 4.82 ± 1.85 | 4.48 ± 1.94 |
| • Relative | 3.20 ± 1.68 | 3.01 ± 1.78 |
| Formal source | 4.07 ± 1.17 | 4.14 ± 1.21 |
| • Mental health professional | 4.90 ± 1.66 | 5.06 ± 1.53 |
| • Doctor | 4.56 ± 1.50 | 4.55 ± 1.50 |
| • Phone/helpline | 3.28 ± 1.55 | 3.49 ± 1.60 |
| • Religious leader | 3.55 ± 1.90 | 3.49 ± 1.98 |
| Someone else | 3.12 ± 1.42 | 3.07 ± 1.48 |
| Nobody | 3.29 ± 1.60 | 3.02 ± 1.52 |

Students with increasing age indicated suicide is common, as strengthened by a Pearson correlation coefficient of 0.147 (*p*-value=0.015), while male gender scored more for suicide being unpredictable (2.89, *p*-value=0.046), and suicidal thoughts will never disappear (2.72, *p*-value=0.009). Female students demonstrated a higher inclination towards suicide as a cry for help, with a score of 3.92 (*p*-value=0.011). Students who practiced Hinduism and other religions, such as Sikh and Buddhism, scored higher on the domains of "suicide is acceptable" (*p*-value=0.001) and "suicide is unpredictable" (*p*-value=0.008). Meanwhile, third-year medical students demonstrated a higher level of acceptance towards the notion that suicide is preventable (*p*-value=0.007), and that suicidal thoughts will never disappear (*p*-value=0.021). Students having a positive family history of psychiatric illness showed more agreement over suicide is acceptable (*p*-value=0.044), while those not having psychiatric family history were more agreeable on suicide is preventable (*p*-value=0.036) domain. Participants belonging to upper lower socioeconomic

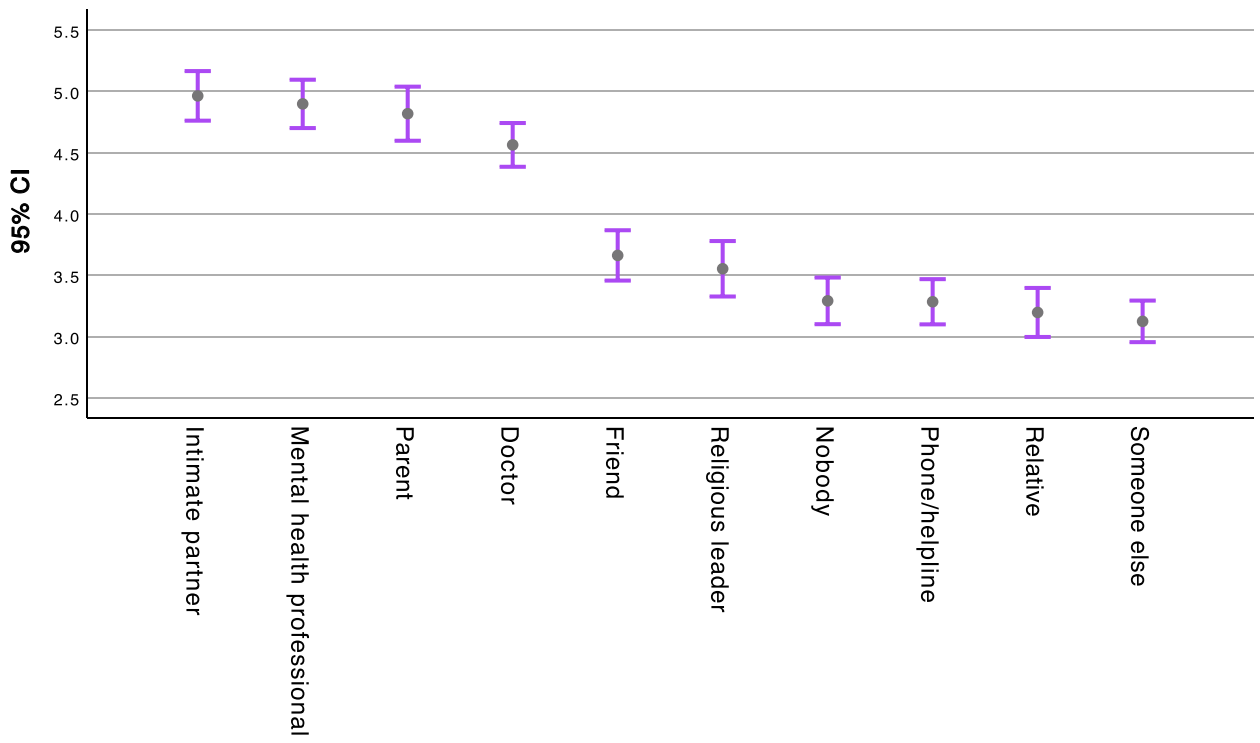


Fig. 1 General help-seeking behavior for personal and emotional problems among medical students

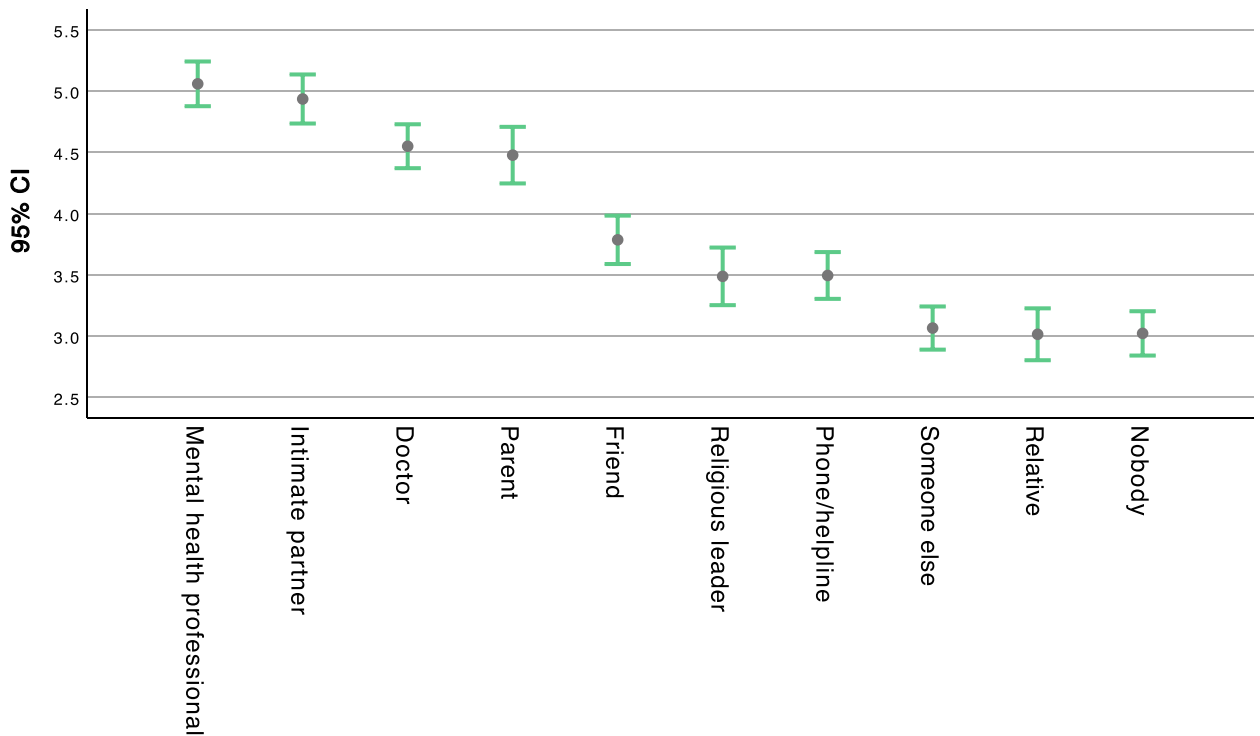


Fig. 2 General help-seeking behavior for suicidal ideation among medical students

Table 3 Mean and SD of ATTS domain with sociodemographic factors

| Variable | N | Suicide is acceptable | | Suicide is preventable | | Suicide is common | | Suicide is unpredictable | | Suicide is a cry for help | | Attempts due to revenge and punishment | | Suicidal thoughts will never disappear | |
|----------------------|-----|-----------------------|---------|------------------------|---------|-------------------|---------|--------------------------|---------|---------------------------|---------|--|---------|--|---------|
| | | Mean (SD) | p-value | Mean (SD) | p-value | Mean (SD) | p-value | Mean (SD) | p-value | Mean (SD) | p-value | Mean (SD) | p-value | Mean (SD) | p-value |
| Age | 275 | 2.20 (0.65) | 0.986 | 3.81 (0.54) | 0.515 | 3.42 (0.62) | 0.034* | 2.80 (0.66) | 0.814 | 3.77 (1.11) | 0.880 | 3.65 (0.83) | 0.614 | 2.54 (0.97) | 0.518 |
| Gender | | | | | | | | | | | | | | | |
| Male | 116 | 2.25 (0.71) | 0.218 | 3.84 (0.58) | 0.410 | 3.48 (0.55) | 0.181 | 2.89 (0.71) | 0.046* | 3.57 (1.15) | 0.011* | 3.71 (0.81) | 0.345 | 2.72 (1.07) | 0.009* |
| Female | 159 | 2.15 (0.60) | | 3.78 (0.51) | | 3.38 (0.66) | | 2.73 (0.62) | | 3.92 (1.06) | | 3.61 (0.85) | | 2.40 (0.86) | |
| Religion | | | | | | | | | | | | | | | |
| Islam | 166 | 2.08 (0.59) | 0.001* | 3.80 (0.52) | 0.886 | 3.46 (0.56) | 0.425 | 2.71 (0.63) | 0.008* | 3.82 (1.03) | 0.604 | 3.63 (0.78) | 0.765 | 2.44 (0.93) | 0.114 |
| Hindu | 98 | 2.35 (0.66) | | 3.81 (0.54) | | 3.37 (0.63) | | 2.89 (0.68) | | 3.71 (1.21) | | 3.66 (0.90) | | 2.69 (0.97) | |
| Others | 11 | 2.54 (1.08) | | 3.89 (0.80) | | 3.30 (1.15) | | 3.24 (0.77) | | 3.55 (1.44) | | 3.82 (1.07) | | 2.64 (1.36) | |
| Education | | | | | | | | | | | | | | | |
| First year | 70 | 2.15 (0.69) | 0.688 | 3.94 (0.46) | 0.007* | 3.23 (0.67) | 0.055 | 2.80 (0.71) | 0.974 | 3.64 (1.14) | 0.588 | 3.63 (0.96) | 0.473 | 2.53 (0.98) | 0.021* |
| Second year | 41 | 2.15 (0.59) | | 3.70 (0.48) | | 3.45 (0.54) | | 2.73 (0.63) | | 3.80 (1.07) | | 3.73 (0.74) | | 2.66 (0.96) | |
| Third year | 49 | 2.30 (0.67) | | 3.95 (0.51) | | 3.51 (0.57) | | 2.83 (0.70) | | 3.90 (1.12) | | 3.82 (0.66) | | 2.82 (1.07) | |
| Fourth year | 40 | 2.25 (0.63) | | 3.82 (0.50) | | 3.43 (0.60) | | 2.80 (0.60) | | 3.63 (1.03) | | 3.58 (0.74) | | 2.63 (0.92) | |
| Internship | 75 | 2.16 (0.65) | | 3.66 (0.63) | | 3.52 (0.63) | | 2.80 (0.65) | | 3.87 (1.15) | | 3.56 (0.90) | | 2.25 (0.85) | |
| Psychiatry posting | | | | | | | | | | | | | | | |
| Attended | 86 | 2.24 (0.70) | 0.433 | 3.79 (0.54) | 0.716 | 3.50 (0.56) | 0.160 | 2.76 (0.68) | 0.585 | 3.83 (1.09) | 0.584 | 3.69 (0.78) | 0.640 | 2.56 (1.04) | 0.819 |
| Not attended | 189 | 2.17 (0.63) | | 3.82 (0.54) | | 3.38 (0.64) | | 2.81 (0.65) | | 3.75 (1.12) | | 3.63 (0.86) | | 2.53 (0.93) | |
| Family history | | | | | | | | | | | | | | | |
| Present | 54 | 2.36 (0.74) | 0.044* | 3.67 (0.66) | 0.036* | 3.48 (0.64) | 0.415 | 2.84 (0.70) | 0.574 | 3.80 (1.01) | 0.852 | 3.67 (0.82) | 0.878 | 2.52 (0.98) | 0.869 |
| Absent | 221 | 2.16 (0.62) | | 3.84 (0.50) | | 3.41 (0.62) | | 2.78 (0.65) | | 3.76 (1.14) | | 3.65 (0.84) | | 2.54 (0.97) | |
| Socioeconomic status | | | | | | | | | | | | | | | |
| Upper | 11 | 2.34 (0.68) | 0.828 | 3.80 (0.52) | 0.378 | 3.45 (0.45) | 0.404 | 2.96 (0.76) | 0.857 | 3.09 (1.44) | 0.029* | 3.55 (0.82) | 0.019* | 2.91 (1.30) | 0.277 |
| Upper middle | 155 | 2.20 (0.64) | | 3.79 (0.55) | | 3.37 (0.58) | | 2.77 (0.65) | | 3.86 (1.05) | | 3.67 (0.82) | | 2.49 (0.90) | |
| Lower middle | 98 | 2.16 (0.64) | | 3.85 (0.46) | | 3.50 (0.69) | | 2.80 (0.68) | | 3.73 (1.15) | | 3.68 (0.82) | | 2.62 (1.02) | |
| Upper lower | 7 | 2.14 (0.66) | | 3.97 (0.29) | | 3.52 (0.63) | | 2.85 (0.42) | | 3.87 (1.34) | | 3.71 (0.48) | | 2.14 (0.90) | |
| Lower | 4 | 2.45 (1.22) | | 3.35 (1.68) | | 3.08 (0.56) | | 3.00 (0.72) | | 2.50 (1.91) | | 2.25 (1.50) | | 2.00 (1.15) | |

*Indicates significant p-value

status indicated greater acceptability over the domains of suicide, such as a cry for help (p -value=0.029) and suicidal attempts due to revenge and punishment (p -value=0.019).

Discussion

The result of our study demonstrates highest acceptability towards suicide is preventable, and suicide is a cry for help among medical students in Jammu and Kashmir. It indicates that students hold a positive approach regarding suicide, and these thoughts could be liquidated. Thus, the ongoing medical training experience they received in the curriculum may prevent individuals with suicidal thoughts from acting on them. It also explains that the greatest disagreement over suicide is an acceptable domain marked by students. Another reason for this disagreement could be the dominant religion of Islam among our participants, which also justifies their least response to acceptability towards suicide, and its unpredictability as suicide is considered a major sin in it. The past scenario of civil and political unrest in this region has created significant mental health suffering and challenged the minds of budding doctors in their childhood, which could be responsible for positing suicide as a cry for help. Further, it also indicates that suicide may serve as a means of communicating for assistance, comprehension, and intervention. Female gender was more adamant in reflecting it as a cry for help which could be due to their more sensitive attitude towards feelings [20] and likely to see it suicidal thoughts and actions as an attempt for assistance.

Students with a positive family history of a psychiatric illness exhibited more acceptance of suicide, which might be attributed to genetics, familial impact, coping mechanisms, and personal experiences. Other study data has shown that those with a positive psychiatric family history are more likely to have suicidal tendencies [21–23]. Since those without a history of mental illness in their family may not have seen or dealt with any suicidal thoughts or actions, they may mistakenly assume that suicide is avoidable because of the widespread belief that mental illness can predispose them to suicide. As a result, suicide prevention programs should consider broad dimensions which extend beyond family history.

The male gender showed more concern for the unpredictability of suicide and the persistence of suicidal thoughts due to the concept of traditional masculinity [24], as they are socialized to hide emotions and vulnerability. This stigma can result in a lack of open discussion and awareness about suicide, fostering a perception of unpredictability and a sense of shame if individuals seek help. This, in turn, may contribute to the belief that these thoughts will persist indefinitely. Also, they may use

avoidance or suppression as coping mechanisms to deal with emotional distress, which may also lead to persistent thoughts. Beliefs about needing to be strong and self-reliant may contribute to the idea that suicidal thoughts are enduring and cannot be overcome [24, 25].

A controversial finding of our study was the inclination of particularly third-year medical students towards the preventability of suicide along with the persistence of suicidal thoughts, which could be due to the multifaceted nature of mental health challenges that they are facing in their ward postings and practical clinical exposure with patients. They encounter a diverse range of patients, with some exhibiting improved health and treatment outcomes compared to those exhibiting persistent symptoms and approaching crises. A detailed study of these students are needed.

Students belonging to lower socioeconomic status, particularly upper-lower indicated suicide, is a cry for help, and attempts are due to revenge and punishment which could be explained by multiple factors. Limited access to mental health resources and cultural and social factors along with stigma and barriers to seeking help could be few of those. These stressors could project into feelings of anger, isolation, and hopelessness and project as a desire for revenge or punishment. Also, our population was uneven for different socioeconomic groups, so this result should be taking into light of this consideration.

Regarding the help-seeking behavior, there was a preference for informal sources for personal and emotional problems, which is consistent with the previous study [26, 27]. Students turned to informal sources for seeking help due to their fear of stigma and criticism. When faced with serious situations such as suicide, students tend to opt for formal help because they have a better understanding of mental health resources and may feel more at ease approaching doctors because of their familiarity with the healthcare system.

This study comes with the following limitations: First, this was a cross-sectional study, and the exact sample population across each study year was not calculated prior to the study, leading to a heterogeneous sample; thus, the results produced are not generalizable. Second, the convenience sampling method was utilized. Third, the study involved a majority of Muslim subjects, a culture that views suicide as taboo, potentially leading to the concealment and under expression of certain attitudes. Fourth, we did not assess the specific emotional and mental condition during form filling, as this could potentially alter a specific perception regarding suicide attitudes. Fifth, due to our unequal sample size of students attending psychiatry postings, we are unable to comment on their attitude as the results are insignificant. Future studies could be conducted among

a homogenous population while keeping these limitations in mind.

Conclusion

Our study presented the attitude of suicide among future doctors of the union territory. Students typically lack proper training in this context, exhibiting leniency as they ignore these postings. In order to promote awareness regarding suicide and facilitate workshops, medical students and faculty members should be actively engaged in the current postings and get involved in workshops. Students' help-seeking patterns could be used to plan appropriate interventions for providing assistance. Counselling services by the psychiatry department should be provided to medical students within the institution in a non-stigmatizing way.

Abbreviations

| | |
|----------|---|
| J&K | Jammu and Kashmir |
| ANOVA | Analysis of variance |
| SPSS | Statistical Package for Social Sciences |
| NCRB | National Crime Records Bureau |
| COVID | Coronavirus disease of 2019 |
| CHERRIES | Checklist for Reporting Results of Internet E-Surveys |
| ATTS | Attitude towards suicide |
| GHSQ | General Help-Seeking Behavior Questionnaire |
| SD | Standard deviation |

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Authors' contributions

RR conceptualized and prepared the manuscript. AR, TJ, KK, RAM, and MSB helped in data collection. IH performed statistical analysis. DN and ZAW contributed in discussion section and performed manuscript correction.

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Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

The study was accorded approval from Institutional Review Board of Government Medical College, Srinagar, Jammu and Kashmir, India. Informed consent was taken from all the participants.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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