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Research Article

Exploring Depression and Suicidal Ideation Among Science and Social Science College Students

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ABSTRACT

Students nowadays have been suffering from various psychological problems due to unfavourable outcomes of life such as insecurity, lack of affection, rejection, loneliness, depression, stress, aggression and suicidal ideation. The purpose of this study was to explore the relationship between depression and suicidal ideation among college students. They ensured accurate and meaningful results by measuring the relationship between variables separately in each group. For this purpose, 200 college students from different colleges in Bihar were selected. Out of which 100 were science students and 100 were social science students. The Beck depression inventory measured depression of college students and the Suicidal Ideation Scale measured suicidal ideation in college students. The t-test and Pearson correlation were applied to find out the relationship between variables. The results indicated that the science college students had significantly greater mean scores than social science students on the Beck depression inventory. Similarly, science college students had significantly greater suicidal ideation than social science college students. A significant positive relationship between depression and suicidal ideation of college students was obtained. The review concludes with a summary of major research findings, as well as a consideration of future directions and implications for practice and policy.

Keywords: Depression, Suicidal ideation, science and social science college students.

INTRODUCTION

The process of moving from high school to college can be a challenging and overwhelming experience for any student. Leaving behind the comfort of family and friends and entering into a new and unfamiliar environment can be stressful. College life brings with it a whole new set of challenges, both academically and socially. Students are expected to deal with more rigorous academic pressures and are faced with an increased workload that can often seem overwhelming. On top of that, there are financial constraints, with students having to manage their expenses with a limited budget. The competition from peers can also be intense, adding to the pressure. It's important to recognize that these challenges can have a significant impact on a student's life and well-being. By acknowledging the difficulties that students face and offering support, we can help them navigate this new and exciting chapter in their lives with confidence and success. It's important to recognize that students face a myriad of stressors that can lead to suicidal thoughts. Mishra and McKean (2000), Polychronopoulou and Divaris (2005), and Erkutlu and Chafra (2006) have all noted that students often struggle with managing their academic performance, building positive relationships with peers, teachers, and family members, and accessing adequate resources, all while navigating a challenging semester system and high-pressure exam periods. Despite these challenges, students are still able to perform well academically (Said et al., 2023; Moses et al., 2022). We must offer support and resources to students who may be struggling, and work to create a culture that prioritizes mental health and well-being.

It's important to recognize that many students enter college with a history of mental health challenges or treatment. When these individuals are exposed to environmental stressors, their risk of experiencing mental health issues, including suicide, may increase. So, it is crucial to prioritize mental health support and resources for all students to

ensure a safe and healthy college experience. According to a recent national survey, 16% of college students have been diagnosed with a depressive condition, many within the previous year. More than 90% of people who commit suicide have a diagnosable mental illness, most commonly a depression or drug misuse condition. Male students are at a higher risk of total suicide and are four to six times more likely to commit suicide than women.

Suicidal thoughts are the earliest warning sign leading to the development of suicidal behaviour.

Suicidal behavior is a complex and distinct psychiatric disorder that requires careful attention and specialized treatment. Self-harming behaviour, as well as suicidal thoughts and death-related ideas, can be indicative of a critical issue that should not be ignored. It's essential to seek help and support if you or someone you know experiences such symptoms.

DEPRESSION

Depression is a term used to describe a state of disturbed mood with unpleasant emotions. This word originated from the Latino word “depressio” which translates to sinking. The individual perceives a profound burden on their existence. This condition spans a spectrum from transient low moods commonly experienced in daily life to a clinical syndrome marked by severe and enduring symptoms that significantly diverge from the norm (Bernard, 2018). It results in behavioural changes in the individual.

These changes can be short-term or long-lasting and can vary from feeling mildly sad to having a completely negative outlook on life and being unable to function properly. Depression is a mental, emotional, and physical state that is characterised by varying degrees of sadness, disappointment, loneliness, hopelessness, self-doubt, and guilt (Kumar et al., 2023; Min et al., 2024; Cho, 2024). Most people experience depression at some point in their lives; some may experience it more frequently or with more profound, long-lasting effects. Depression can sometimes last months or even years. The least severe sort of depression, "feeling blue" or "being in a bad mood," is generally brief in duration and has little or no impact on routine, daily activities. Symptoms of severe depression are more powerful and persistent. The person is still able to perform daily tasks even though they are more challenging. Extreme mood swings or even a total disengagement from daily activities and/or the outside world are possible signs of severe depression. Hopelessness can become so strong that suicidal thoughts and thoughts of death arise. Depression is a mood disorder characterised by low mood and aversion to activity. It can have an impact on a person's feelings, thoughts, behaviour, and overall well-being.

Depression is a complex mental health condition that goes beyond just feeling sad. It can cause a profound lack of interest and joy in everyday activities, result in significant weight loss or gain, disrupt sleep patterns, sap energy levels, impair concentration, trigger feelings of worthlessness and excessive guilt, and even lead to recurrent thoughts of death or suicide. These symptoms can be devastating for those suffering from depression, and it is essential to seek professional help to effectively manage and treat this condition (APA, 2013, Adewuyi et al., 2023).

Long-lasting or recurring depression can significantly hinder a person's capacity to manage everyday life, perform well at work or school, or survive. When depression is at its worst, suicide might result. People with moderate to severe depression may benefit from both professional talking therapies and medication, although minor depression can be managed without either (WHO, 2015).

The effects of depression are profound. Academic disability has long been linked to depression (Heiligenstein, Guenther, Hsu, & Herman, 1996). According to the American College Health Association. (2009), anxiety and depression are routinely ranked in the top 10 factors affecting academic performance over the previous 12 months. According to Hysenbegasi, Hass, and Rowland (2005), receiving treatment for depression was linked to a 0.44 protective impact and a 0.49 drop in student GPA. According to Gollust, Eisenberg, & Golberstein (2008) and Kisch, Leino, & Silverman (2005), depression may also raise the risk of self-harm, college dropout or failure, suicide attempt or actualization, and other dangerous behaviours. Furthermore, Adams and Moore (2007) found a correlation between students' credit card debt increase and their perception of functional impairment caused by depression during the previous year. According to Sabina and Straus (2008) et al. (2008), relationship violence (physical, psychological, or sexual victimisation) and alcohol and tobacco usage have been linked to psychiatric illnesses and depressive symptoms.

SUICIDAL IDEATION

In his book, "Religiomedici," Thomas Brown (1642) used the term "suicide." The document has caused the public to feel a variety of ways. These emotions are distinct from those of rage, sadness, contempt, anxiety, tension, fear, melancholy, and humiliation. "A planned decision to end one's existence, an unexpected way of death, where the willingness to die originates within the person and there is the presence of well-known or unknown causes to end one's life," is an official definition of suicide. When someone considers, attempts, or actually commits suicide, they never take into account their future possibilities or reachable alternatives before acting. The word "suicide" has meant different things to different individuals throughout history. The phrase has many definitions, some of which are "the murder of oneself," "nothing less than a (sort of) exit," "an end to psychic conflicts," "a conscious act of self-inflicted cessation," "an act of despair of which the result is unknown, occurring after a battle between an unconscious death wish and a desire to live better," "to love and be loved," "to live or not to live," and others. It is unquestionably an act of self-destruction and a significant loss to society, regardless of how the word is interpreted. Lock and Steiner (1999) highlight the struggles adolescents face in authenticating themselves, leading to significant stress in various scenarios. A major contributing factor to this identity crisis is the changing sexual roles of men and women. Furthermore, Capuzzi (1994) stresses that ecological pressures, such as parental expectations for academic achievement, immature relatives, drug availability, and peer pressure, can lead to depression. It is crucial to acknowledge these issues and support young people in navigating these challenges to ensure their mental well-being.

Suicides tend to happen in response to stress; mental incompetence and heartless attachment work together to weaken people's capacity for self-control and reason. Significantly more teenage suicide victims reported feeling extra pressure from their parents. Mood disturbance concerns are typically encountered in adolescents (Archer and Slesinger, 1999; Rolla, 2023).

College life can be stressful for many students as they adjust to a new environment, more significant academic pressure, and increased freedom. Being away from home and experimenting with substances can also exacerbate mental health issues and increase the risk of suicide. Studies have shown that factors such as parental absence or inaccessibility, poor communication within the family, conflict within the family, high parental expectations for achievement, and overt family dysfunction are significant risk factors for suicide (Grob, 1983). Psychosocial distress, drug use, familial pressure, and ambiguous educational goals are associated with suicidal thoughts (Thompson, 1994).

The Centers for Disease Control and Prevention (2004) reported that among teens and young adults, suicide is the third most common cause of death. Depression has been identified as a risk factor for suicide by Agerboet al. (2002), Cooper et al. (2002), Garlow (2002), Nemeroff et al. (2001), and others. Other risk factors include substance misuse, adverse life events, family history, a history of sexual abuse, and issues with perceptions of sexual identity. In the last year, 1.2% of female respondents and 1.5% of male respondents had seriously pondered suicide, according to the ACHA, while 6.1% of female respondents and 6.4% of male respondents had done so in the previous two weeks (ACHA, 2008). 11% of college students agreed with current (past four weeks) suicidal thoughts, according to research by Garlow, Rosenberg, and Moore (2008) on suicidal ideation and depression among students.

SIGNIFICANT OF THE STUDY

However, no study has been carried out in developing countries, especially in India, in this regard. Literature reveals the fact that science students are prone to stress, adjustment problems, and psychological problems, and various linking factors have also been discovered. They have concluded that the majority of student issues stem from "depression, which leads to suicidal ideation" (Bland and others, 2008). Hence, the findings of the study would help to understand why the disturbed minds of the science students. Pupils have experienced a range of psychological problems as a result of unwanted life transitions, including feelings of inadequacy, rejection, loneliness, stress, sadness, violence, and suicidal thoughts. To improve well-being, it is therefore desperately needed to assist with psychological counselling, group therapy, relaxation therapy, other alternative treatments, or a combination of them all. Because of this, the purpose of this study is to investigate how group therapy and depression affect suicidal ideation in college students.

HYPOTHESES

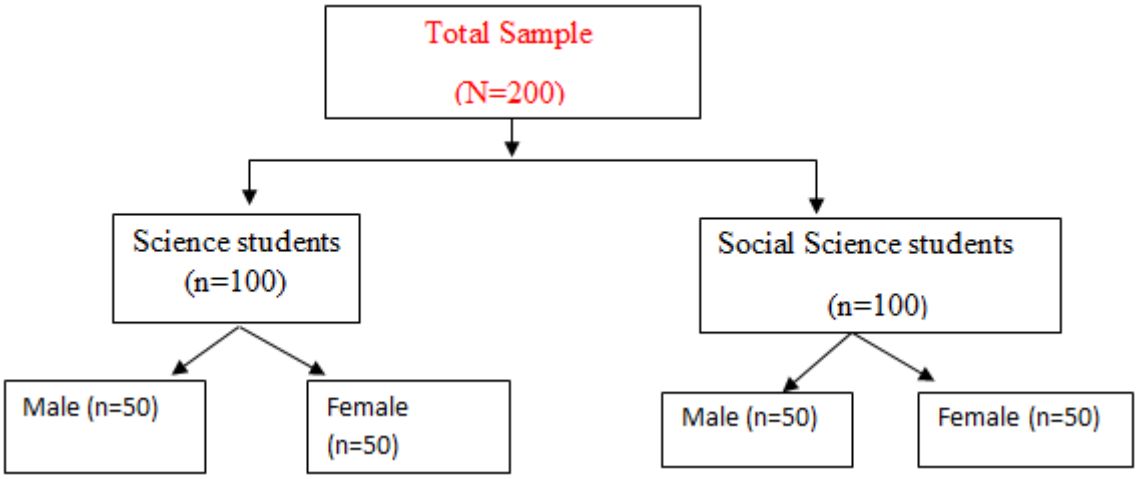
1. There would be a significant difference between depression in science and social science college students.

2. There would be a significant difference between suicidal ideation in science and social science college students.
3. There would be a significant relationship between depression and suicidal ideation in science college students
4. There would be a significant relationship between depression and suicidal ideation in social science college students.

SAMPLE

Data were collected on a total of 200 college students from different colleges of Bihar. Out of which 100 were science students (male=50 and female=50) and 100 were social science students (male=50 and female=50). Further, the age range of the students was 20 to 25 years of age. An availability sampling technique was used to select the respondents of the study.

The graphic presentation of the sample can be given below:



RESEARCH DESIGN

In the present study, a two-group comparative design (science students and social science students) and a correlational design were used. The present study was to examine the difference in depression and suicidal ideation between science and social science college students. In addition, to examine the relationship between depression and suicidal ideation among science and social science college students.

TOOLS

The BDI-II is a depression assessment tool created by Beck (1996). It has 21 items that help measure the severity of depression, including its physical, emotional, cognitive, and behavioural symptoms. Respondents rate each statement on a 0-3 scale based on how well it reflects their feelings over the past two weeks. Sadness is an example item: 0 = I don't feel sad; 1 = I feel sad frequently; 2 = I am always sad; 3 = I am sad or miserable. Summing things yields total scores. (Scores 0-9 indicate no depression, 10-18 suggest mild depression, 19-29 indicate moderate depression and 30–63 indicate severe depression). Internal consistency in the current study was high (Cronbach's alpha =.92). On the other hand, the Suicidal Ideation Scale is a self-report measure developed by Sisodia & Bhatnagar (2011). It consists of 25 questions, including four negative statements and twenty-one positive statements. This scale can be used as a screening tool to identify individuals who may be suffering from a high degree of suicidal ideation. It is a self-administered test that is suitable for both individual and group testing. The scale has been found to have a high level of internal consistency (0.81) and test-retest reliability (0.78), making it appropriate for use with people of all ages. In addition, the scale has been shown to have face and content validity. According to the report, "this scale has been validated in opposition to the external criteria, and the obtained coefficient was 0.74. It is essential to know that the scores you assign to positive and negative statements can significantly impact the overall results when using a rating system that ranges from "strongly agree to strongly disagree." To obtain more accurate results, assign positive statements higher scores of five, four, three, two, and one, and negative statements lower scores of one, two, three, four, and five. Suicidal ideation increases with higher scores. All age groups' norms for the scale are given. A person who scores between 121 and 125 is thought to have a very high level of suicidal thoughts. A score between 106 and 120 indicates a significant risk of suicidal ideation.

Average suicidal ideation is represented by a score between 46 and 105. Individuals with low levels of suicidal thoughts might be indicated by a low score, such as 31–45. On the other hand, a person scoring between 25 and 30 is considered normal and has minor suicidal ideation.

PROCEDURE OF DATA COLLECTION

To begin with the research, the researcher contacted the different colleges of Bihar. Permission was sought from the institute authorities by approaching and explaining details of the study, i.e, purpose and benefits for the students, the institute and the parents. Also, verbal consent of the college students regarding data collection was taken and they were assured of confidentiality. College students who were not willing to give information were not forced to do so and were not included in the sample for the study. First, they were explained briefly about the purpose and the importance of research, which helped in establishing rapport with them. The tests were administered in groups on the available and allocated to the researcher. The scales were administered to them one after the other in the same Order. After collecting the relevant data researcher extended thanks to the participants for contributing their valuable time and helping the researcher in her research pursuit.

RESULTS

Obtained data were analyzed with the help of SPSS 27 using different statistical techniques, and the results were given in the table along with their interpretation. The data were analyzed and tabled in light of the hypotheses.

Table : Means, SDs, and SED and results of t-ratio of science and social science college students on depression.

Variables	Group	N	Mean	SD	SED	t	P
Depression	**science college students**	100	31.70	2.908	1.096	5.201	<.01
	social science college students	100	26.00	1.886			

From Table, it is observed that the mean of the overall scores on the depression of science college students was higher than social science college students. The mean score of science college students was 31.70, whereas, for the social science college students group it was 26.00. Similarly, the standard deviation value of the science college students group were 2.908 and social science college students group it was 1.886. The difference in the mean scores for the two groups were satisfactory and it was found to be statistically significant (t = 5.201).

Table: Means, SDs, and SED and results of t-ratio of science and social science college students on suicidal ideation.

Variables	Group	N	Mean	SD	SED	t	P
Suicidal ideation	**science college students**	100	46.30	2.751	.964	6.325	<.01
	social science college students	100	40.20	1.317			

From Table, it was found that science college students had greater overall scores on Suicidal ideation compared to social science college students. The mean score of science college students was 46.30, whereas, for the social science college students group it was 40.20. Similarly, the standard deviation value of the science college students group was 2.751 and the social science college students group was 1.317. The difference in the mean scores for the two groups was satisfactory and it was found to be statistically significant (t = 6.325).

Table : Results of Correlation between depression and suicidal ideation of science college students.

Variables	Correlation	Significance level
Depression	0.83	**< .01**
Suicidal ideation		

Table: Results of Correlation between depression and suicidal ideation of social science college students.

Variables	Correlation	Significance level
Depression	0.77	**< .01**
Suicidal ideation		

From Table, it was found that the coefficient of correlation between depression and suicidal ideation of science college students was found as 0.83 which was significant at 0.01 level of significance. In the same way, a look at Table revealed that the relationship between depression and suicidal ideation of social science college students was 0.77 which was significant beyond the .01 level of confidence.

DISCUSSION

It appears that science college students had significantly higher levels of depression than social college students. This may be because science students must appear for many examinations and compete with other students to get a good rank. Maladjustment with other students, parental pressure, and teacher pressure could be other causes of a high score. The majority of students in colleges are new to this type of competitive environment, which is completely different from that of schools. Previous studies also observed similar results (Sanjiv et al., 2010). Thus, the hypothesis presuming difference in the extent of depression between the two different groups (science and social science) of college students was found confirmed**.** On the other hand**, the** science college students had greater suicidal ideation than their social science college students. The findings of the study show that science students think about and discuss suicidal thoughts more than social science students. This may be because of tough competition, thinking about future careers, and a limited seat in his/her subject area. Science students often face pressure from their professors, parents, family members, and friends to perform beyond their capabilities. This pressure can lead to increased levels of stress, burnout, depression, imposter syndrome, and other mental health challenges. As a result, science students may experience more significant mental health issues than their peers in social science fields. According to the conducted surveys, students belonging to the science stream experience more stress as compared to students studying in other streams. This is mainly due to the increased class workloads and examinations. Students who are under high levels of stress tend to face difficulty in learning, memorizing, and earning good grades. Moreover, they also suffer from poor physical, emotional, and mental health (Aafreen et al.,2018). That is why suicidal thoughts are more frequent in science students than in social science college students. Thus, the hypothesis presuming the difference in suicidal ideation between the two different groups (science and social science) of college students was confirmed. Student counsellors are required for each stream to help students to cope with the necessary course requirements. This will alleviate depression in students and help them perform well academically and have a healthy campus life.

Both science and social science college students showed a positive correlation between depression and suicidal ideation scores. It means that if depression increases, suicidal ideation will also increase, and vice versa. The analysis of Tables 3 and 4 has yielded a highly significant outcome. The positive correlation between the variables is a strong indication of their direct and positive relationship. Consequently, hypotheses 3 and 4 are confidently accepted. The current study's findings demonstrate a positive and substantial correlation between depression and suicidal ideation. This suggests that when depression grows, so does suicidal ideation, which is consistent with the findings of other studies (Gould et al., 2003; Wagner, 1997; Pinquart, 2009). The researchers hypothesize that depression increases the appearance of these ideas and even suicidal attempts in college students by negatively impacting their everyday performance and social interactions (Levine, 2008). In addition, the remaining study results point to a positive and substantial link between anxiety, everyday stress, mental health, and suicidal thoughts, which is consistent with the findings of other studies (Levine, 2008; Waldvogel, et al., 2008; Philips et al., 2002).

CONCLUSION:

The present study was conducted to explore the relationship between ‘depression and suicidal ideation’ of science and social science college students. The Pearson correlation was applied to find out the relationship between ‘depression and suicidal ideation’ of science and social science college students separately. The following results were obtained a positive and significant relationship between depression and suicidal ideation of college students was obtained.

The following results were obtained:

1. The results of t- test reveal that science college students significant by greater mean score than social science college students on depression.
2. Science college students had significantly greater suicidal ideation than social science college students.

3. A positive and significant relationship between depression and suicidal ideation of college students was obtained.

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Authors' contributions

All authors contributed toward data analysis, drafting and revising the paper and agreed to be responsible for all the aspects of this work.

Declaration of Conflicts of Interests

Authors declare that they have no conflict of interest.

Availability of data and materials

Not Applicable

Use of Artificial Intelligence

Not applicable

Declarations

Authors declare that all works are original and this manuscript has not been published in any other journal

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