Academic Anxiety and Self-Efficacy Among College Students in Bangalore

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Abstract

The concept of self-efficacy (SE) was put forward by Albert Bandura (Bandura, 1977, 1986, 1997) which refers to one's belief in their capacity to succeed in a task or goal successfully. Academic anxiety (AA) can be noted as the uneasiness and worry an individual experiences physically and psychologically with regard to their academic achievements and tasks. The physical and psychological distress caused can contribute to interfere with our own ability to complete a given assignment with success. The psychological and physical distress can range from over whelming sense of fear, uneasiness, to increased blood pressure, cold hands and feet, increased heart beat etc. The study aims to explore the association between AA and SE in college students in Bangalore. The present significance of the study is to understand if there exist a relationship between academic anxiety and self-efficacy in the setting of college students as there are limited studies conducted in the Indian context. The study uses quantitative method where questionnaires such as General Self Efficacy Scale and Academic Anxiety Scale was used to collect data from participants. A total of 217 participants (females = 117 and males = 100) took part in the study. The result indicates that there is low negative correlation between AA and SE and there exist no gender difference in AA and SE.

Keywords: Self-efficacy, Academic Anxiety, College students

INTRODUCTION

Anxiety is an emotion that causes physical and mental distress to an individual. It is commonly seen in people of all age groups from young to old. Individuals can feel anxious about anything from the worry of getting separated from parents or their loved ones in young age to the feeling of uneasiness in social situations. It can differ from people to people and based on each individual's vulnerability.

Academic anxiety (AA) is a form of anxiety consisting of cognitive, physical, and behavioral states related to educational contexts and events (Cassady, 2010). In a study conducted by Richard and Ralph, the theoretical aspect of academic anxiety was discussed. It was stated that academic anxiety consists of two sub-components i.e., debilitating anxiety (anxiety constrains an individual form preforming better in academic activities) and facilitating anxiety (anxiety that helps an individual to do better in academic activities).

Academic anxiety contains five components: worry, procrastination, study skill deficit, task generated interference and emotionality (Hooda, M & Saina A, 2017). Research studies shows that females experience more anxiety during their first and second year in college than males (Wenjuan, Siqing & Xinqiao, 2019). During the last decade, there is an increase in the reporting of anxiety disorders among

college students. High expectations from parents and society puts them under constant feeling to do well. Self-efficacy (SE) refers to an individual's belief in his or her capacity to execute behaviours necessary to produce specific performance attainments (Bandura, 1977, 1986, 1997). It is the belief in one's capacity or ability to succeed in a task or fulfilling a goal successfully. When individuals are under constant anxiety, there are possibilities that their self-efficacy might be affected by it. That is, when students continuously experience uneasiness or worry about their academic achievements, their confidence to complete or accomplish a particular task might go down eventually affecting their self-efficacy. When these scenarios take place, it is difficult for students to keep up with a balanced psychological well-being and it may affect their performance gradually having a negative impact overall.

This situation can also happen vice versa where after a failure to do an academic task, some individual's might question their ability. When these questioning becomes prominent, it might affect their self-efficacy leading to academic anxiety. That is, when faced with a situation to perform a task, the thought of "will I be able to do this?" causes anxiety and poor performance. Both the scenarios can lead to stagnating their skill development and forming a vicious cycle.

According to report by NCRB, the rate of suicide committed by students continues to remain alarmingly high from 2017 to 2022 with statistics of 7.6% in 2017, 8.2% in 2020, 8% in 2021 and 7.6% in 2022. One of the reasons prominently shown is the failure in examination. Anxiety is another common factor faced by most of students currently affecting their daily life and performances. Karnataka ranks eight in NCRB survey and with Bangalore being the hub of college students from different states of India, therefore it plays a greater role in understanding the association between academic anxiety and self-efficacy to prevent unwanted situations.

Need and Significance of the Study

The studies conducted with self-efficacy and academic anxiety is very minimal. Altogether the studies that had come across contains a lot of limitations. As the sample size of these studies are small and is concentrated to one certain school or college, it is difficult for us to generalize their findings. The studies that took place in Indian context cannot be generalized as India is a diverse country. In a country like India, where education is given higher importance, the students are always under constant pressure to do well. Hence, it is important for us to recognize the factors that affect individual's academic performance. As we move forward in this era, students are bounded by the negativity that surrounds them. College students feel the pressure to be highly competitive in this cooperate world where they have to market themselves to earn for their survival. To be able to reach a certain level of success, a contributing element is academic success and achievements. Therefore, students most probably experience excessive worry regarding their academic performance and question their ability to achieve success in life. Being under the constant demand to do well and improve their skills creates anxiety. Anxiety is one of the prominent mental health disorders seen in college students. The prevalence of anxiety among college students has increased over the past years. Indian college students experience a concerning level of anxiety (Shah, T., & Pol, T, 2020). Constant worry and fear about academic task, performance and achievements may contribute to lessen the individual's belief about completing a task successfully. Therefore, it is important for us to understand the relationship between AA and SE among college students.

Review Of Literature

SE is described from the perspectives of Social Cognitive Theory which looks upto understanding our

cognition, action, and emotion. It assumes that we actively shape our environment rather than being passive reactors. SE is individual's belief in their capability to exercise control over challenging demands and their own functioning (Ruch, Bakker, Tay, & Gander, 2022). In Handbook of Positive Psychology Assessment by Ruch, W., Bakker, A. B., Tay, L., & Gander, F says that self-efficacy takes an optimistic self-belief, i.e., the belief of oneself that they can perform a task or cope with adverse situation. It also mentions that it is a subjective measure of the amount of personal control an individual expects them to have on a given situation. For example, if we have the belief that he or she might be able to do a particular task (high self-efficacy), then we are likely to work towards to achieve that particular goal. In the same way, if we believe that they can overcome a threat (eg: exam), they are more likely to approach it than avoid it. But, if the individual has doubts in their ability to perform (low self-efficacy), they might avoid or hesitant to go ahead for that task (Ruch, Bakker, Tay, & Gander, 2022).

Anxiety is considered as an emotion marked by uneasiness and physical indication of tension where an individual anticipates impending danger, catastrophe, or misfortune. The body often mobilizes itself to meet the perceived threat: Muscles become tight, rapid breathing, and heart palpitation (APA definition, 2018). According psychoanalytic theory, Freud suggests that anxiety comes from accumulated libido which cannot be discharged due to unsatisfactory sexual life and sexual repression (Klein, D. F, 2002). Later, he proposed that anxiety occurs from unconscious conflicts between the id and ego and repression plays key role in the development of anxiety. Freud described about two types of anxiety - automatic anxiety (triggered by traumatic situations) and signal anxiety (a warning of impending danger). Based on cognitive theory, anxiety arises according to how individuals interpret their situations. People who have high anxiety tend to recognize ambiguous situations more threatening where they overestimate danger and underestimate their ability to cope up with the situation.

Ganie, A. H., & Ganai, M. Y. in 2024 carried out a research on the topic "Academic Anxiety and Self Efficacy among Adolescents of Kashmir" in India and found that the students experienced low, moderate and high in both SE and AA. They found that there exists a negative association between AA and SE. The same result stating there is negative association between AA and SE was proved by Marselina, et.al in 2023 and Purwanti, et.al. in 2019. In the study conducted by Arnaiz-Castro, P., & Daiz, P. L. J. in 2016 on the topic "A Study on the Correlation between Anxiety and Academic Self-Concept in Interpreter Trainees" in Spain revealed that students with high academic anxiety tend to have lower self-concepts.

The result put forward by Mahajan, G. in 2015 was that there is negative association between AA and parental encouragement. Alongside, the results also shows that there is no difference between academic anxiety among males and females. The results obtained from the research by Shakir, M. in 2014 indicates that there is negative association between AA and academic achievement. The study by Milgram, N., & Toubiana, Y. in 1999 concluded that AA has an affect on academic procrastination and vice versa. The findings by Fathima, A. in 2022 suggest that there is difference in self-efficacy between males and females and contradicting results was found by Baji, M. I in 2020.

The existing body of literature with respect to the variables is very limited and the studies done particularly in India is minimal. Also, the studies conducted are specific to certain population and the sample size is small, limiting the generalizability. There are very few studies conducted on college students with respect to academic anxiety in India, as most of the studies are done in school students. Through conducting the study, we can explore the relationship between academic anxiety and self-efficacy among college students. Therefore, this paper tries to fill this gap by conducting the research on college students and understanding it's effect on the students.

Method
Objectives
1. To understand the relationship between academic anxiety and self-efficacy among college students in Bangalore.
2. To understand the difference in academic anxiety and self-efficacy between males and females among college students in Bangalore.

Variables and Operational Definition
AA refers to the negative feeling or uneasiness that are aroused due to constant worry regarding academic achievements and tasks.

Self-efficacy is the belief in one's capacity or ability to accomplish a task or achieve a goal successfully.

Hypotheses
H_01: There is no significant relationship between academic anxiety and self-efficacy among college students.

H_02: There is no significant difference in academic anxiety among males and females.

H_03: There is no significant difference in self-efficacy among males and females.

Sample
The original size of the sample was 230 college students of which 103 were males and 127 were females. But the sample was reduced to 216 since 14 data did not meet the inclusion criteria. The actual sample size used for data analysis is 216 with 100 males and 116 females of which 114 students were undergraduates and 102 were postgraduates. The population for the study was college students and non-probability sampling method was used to choose the sample. Convenient sampling technique was used to collect data. In convenient sampling, participants who were easily accessible filled the forms mostly.

Inclusion Criteria
- Individuals of age between 18 and 26 are included.
- Participants must be a college student pursuing professional degree courses.

Exclusion Criteria
- Individuals pursuing distant education are excluded from the study.
- Individuals suffering from any anxiety related disorders are excluded from the study.
- Individuals pursuing diploma courses was excluded from the study.

Tools for the Study
General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995): It is a measure of general self-efficacy and consist of ten items. Internal reliability for GSE = Cronbach's alphas between .76 and .90. The General Self-Efficacy Scale is associated to optimism, emotion, and work satisfaction. Negative coefficients were found for stress, depression, burnout, health complaints, and anxiety.

Academic Anxiety Scale (Cassady, J. C., 2019): It measures academic anxiety. Reliability estimates were high, with Guttman's split-half reliability at .91 and Cronbach's alpha at .90.

Research Design and Statistical Technique

Quantitative research method was used in the study where we collect numeric data and analyze those numerical data in order to answer our research questions and hypotheses. Correlational research design was used for the study as it helps to find out the association between the two variables of the study i.e., SE and AA. The data was collected using questionnaires and it was analyzed using statistical means.

SPSS was used to analyze the data statistically. Descriptive statistics i.e., mean and standard deviation was carried out to summarize the data. Non parametric test such as spearman was used for correlation and Mann-Whitney U test was used to find the differences in gender among the variables.

Results

Table 1: Normality of the data for academic anxiety and self-efficacy

Test of Normality						
N = 216	Kolmogrov-smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig	Statistic	df	Sif
Academic Anxiety	0.056	216	0.099	0.977	216	0.001
Self-efficacy	0.061	216	0.048	0.985	216	0.024

Table 1 shows the normality of the data for AA and SE. The statistic, df and significance value for AA in kolmogrov- smirnov[a] is 0.056, 216 and 0.099 respectively. In kolmogrov- smirnov[a], the statistics, df and significance value for SE is 0.061, 216 and 0.048 respectively. The statistic, df and significance value for AA in Shapiro-wilk is 0.977, 216, and 0.001 respectively. In Shapiro-wilk, the statistics, df and significance value for AA is 0.985, 216, and 0.024 respectively.

The first hypotheses states that "There is no significant relationship between AA and SE among college students".

Table 2: Descriptive statistics and spearman's rank correlation for academic anxiety and self-efficacy

	N	Mean	Standard Deviation	Sig	Academic Anxiety	Self-Efficacy
Academic Anxiety	216	23.00	7.231	0.002	1	-0.211**
Self-Efficacy	216	27.68	6.578		-0.211	1

Correlation is significant at the 0.01 level (2-tailed)

Table 2 shows the descriptive statistics and spearman's rank correlation for AA and SE. The sample size (N) is 216. The mean for AA and SE is 23.00 and 27.68 respectively. The standard deviation for AA and SE is 7.231 and 6.578 respectively. The coefficient correlation and significance value is found to be -0.211 and 0.002.

The second and third hypotheses states that "There is no significant difference in AA among males and females" and "There is no significant difference in SE among males and females".

Table 3: Mean Rank, Sig and Z for academic anxiety and self-efficacy

Variables	N	Mean Rank (Female)	N	Mean Rank (Male)	Sig	Z
Academic Anxiety	116	110.65	100	106.01	.586	-0.554
Self-Efficacy	116	109.71	100	107.10	.759	-0.307

Table 3 shows the mean rank, sig and Z for AA and SE. The sample size is 216 consisting of 100 males and 116 females. The mean rank for males and females in AA is 110.65 and 106.01 respectively. The mean rank for males and females in SE is 109.71 and 107.10 respectively. The Z- value and significance value for AA is -0.554 and 0.586 respectively. The Z- value and significance value for SE is -0.307 and .759 respectively.

Discussion

The aim of the research was to understand the relationship between academic anxiety and self-efficacy among college students. AA refers to the negative feeling or uneasiness that are aroused due to constant worry regarding academic achievements and tasks. SE is the belief in one's capacity or ability to accomplish a task or achieve a goal successfully.

Table 1 shows the normality of the data for AA and SE. The Shapiro-wilk significance value is greater than 0.005 indicating that the data deviates from normal distribution. Therefore, the later analysis was carried out using non-parametric tests such as spearman correlation to check the relationship between AA and SE and Mann-Witney U test to check the gender difference among the two variables.

Table 2 shows the descriptive statistics and correlation for AA and SE. The correlation coefficient is found to be -0.211 suggest that there is low negative correlation between AA and SE. Also, the significant value is 0.002 which is below 0.01 indicating that it is statistically significant. Therefore, we can reject the null hypotheses that there is no significant relationship between AA and SE. There exists a low negative correlation between AA and SE. That is, as AA increases SE decreases and vice versa.

The result obtained is in line with the result obtained by the work of Ganie, A. H., & Ganai, M. Y. in 2024, Marselina, et.al in 2023 and Purwanti, et.al. in 2019 that there exists a negative correlation between AA and SE. This suggest that as student's anxiety related to academics increases, their perceived ability to succeed can go down hill. Angelidis, A, et.al (2019) has mentioned in her study that cognitive performance anxiety (anxiety that arises when the individual is asked to do a task related to cognitive performance such as academic anxiety) impairs attentional control and working memory. Poor cognitive performance affects SE which can in turn increase anxiety and other mental disorders among students.

According to Social Cognitive Theory, low SE will lead to increase in anxiety and avoidance behaviour. This can cause individuals to avoid academic related tasks and activities such as procrastinations, cramming in last moments, experience of aversive biological responses and excessive worry (Hooda, 2017). This indeed can cause significant amount of anxiety in students and affect their academic performances and achievements.

Table 3 shows the mean rank, sig and Z for AA and SE. The Z- value for academic anxiety and self-efficacy is -0.554 and -0.307 respectively. The significance value for AA is 0.586 which is greater than 0.05. Therefore, we accept the null hypotheses stating 'There is no significant difference in AA among males and females.' This suggest that there is no difference in AA between males and females. The mean rank between males and females for AA shows that there is only slight or minute variance among them which can be negligible.

The significance value for SE is 0.759 which is above 0.05 indicating that the null hypotheses is accepted which states that 'There is no significant difference in SE among males and females'. This means that there exist no difference in SE between males and females. The mean rank for males and females indicates that there is only minor or negligible difference between them.

The findings suggest that there exist no significant differences among males and females in AA which is supported by the study by Mahajan, G. conducted in 2015. But this is also not agreed upon with the outcomes obtained by Ganie, A. H., & Ganai, M. Y. in 2024 and Gul, S. B. A. in 2017. This may suggest that AA is shaped by factors other than gender, such as personal experiences, learning environments, or academic pressures. This result might be observed because currently both the genders are given equivalent opportunities to education and carve out a path for them which can cause putting up pressure on both the genders equally causing them significant distress to students and leading to AA.

The study by Fathima, A. in 2022 shows that there is significant difference in SE among males and females which is contradicting to our results. But the study findings by Baji, M. I. in 2020 found that there is no significant difference in SE among males and females The lack of a significant difference in SE between males and females may be due to the equal opportunity given to both genders with respect to education, and similar learning environments that provide opportunities and encouragement equally. Also, shift in gender roles might also have an impact. SE is more influenced by individual experiences, motivation, and past achievements rather than gender alone. Cultural and societal factors promoting gender-neutral encouragement in academics and careers could also play a role, suggesting that external influences outweigh gender-based differences in shaping SE.

Summary and Conclusion

The study aimed to investigate the association between AA and SE among college students in Bangalore. The objective was to understand the association between AA and SE among college students in Bangalore and to understand the difference in AA and SE between males and females among college students in Bangalore. From the study, we can say that there is low negative association between AA and SE among college students in Bangalore. Also, it was found that there is no significant difference in AA and in SE between males and females among college students in Bangalore. The findings suggest there is a need to focus on AA and SE and the ways to improve it in college students in Bangalore.

Implications

This study has found that there is a low negative association between AA and SE which means that students with high AA most probably avoid challenging tasks and doubt their abilities. The existing studies such as by Ganie, A. H., & Ganai, M. Y. (2024), Marselina, et.al (2023), and Purwanti, et.al (2019) has also obtained similar results in their study. This finding aligns with the social cognitive theory which implies that low SE leads to anxiety. This shows that significant attention has to be given to students having low self-efficacy to help them manage their AA and improve academic outcomes in college settings. As proposed by Mahmood, N and Rana, R. A. in 2010, the faculty members of each department in university

colleges should take up the initiatives to help students manage their anxiety levels. Also, interventions to improve self-efficacy can also be provided to the students experiencing low self-efficacy. Gueroni, L. P. B. (2023) found that through psychotherapies, mindfulness, music therapy and stress control strategies they could manage anxiety but it showed poor performance in increasing self-efficacy. Whereas, home works, techniques focused on positive mental health such as personal satisfaction, self-control, problem-solving increased self-efficacy.

Limitations

As in every study, this paper also has it's own strengths and limitations. The limitations of the study include less sample size and using a convenient sampling method to collect data. This limitation can interfere with the generalizability of the key findings found. The use of questionnaires can also result in participants manipulating their answers which can have a negative impact on the results obtained.

Suggestion for Future Research

This study has found that there is an association between AA and SE and also there is no difference in AA and SE between males and females in college students. This actually tries to fulfil the gap of lack of studies with these variables in college setting. As a recommendation for future researches, it will be better if the variable can be more specific like academic self-efficacy rather than general self-efficacy if the study is conducted in an academic setting. Also, conduct it in a diverse setting and see if there exist any cultural difference that can be seen with respect to it and compare it to see the different factors that are playing a role between these.

Ethics Followed

Informed consent was taken from each participant. Voluntary participation from the participant were strictly followed. Confidentiality of the data was maintained to protect participants' privacy, with data being anonymized where possible. The data collected was solely used for research purpose only.

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