



Unraveling the Impact of Cognitive Test Anxiety on Academic Performance among Adolescents: The case of minority and majority communities

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ABSTRACT

Background: Within the Indian society and its many communities, adolescents exhibit a wide range of individual differences, including cognitive abilities, learning styles, and personality traits. These differences can influence how students perceive and cope with test anxiety and related stress. **Objective:** The primary goal of this research study was to investigate the influence of cognitive test anxiety on academic performance in adolescents from both minority (Muslims) and majority (Hindus) communities in India. **Method:** Based on descriptive-inferential research design, a sample of 450 students was selected, with 223 students representing the majority community and the remaining 227 students representing the minority community. The participants were drawn randomly from various schools in Aligarh district, Uttar Pradesh, India. **Finding:** The findings of the study indicated a significant influence of cognitive test anxiety on the academic performance of both minority and majority community adolescents. **Conclusion:** On the bases of findings, it may be concluded that the influence of cognitive test anxiety on academic

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performance among adolescents of minority and majority communities is a complex as well significant issue, where socio-cultural factors, educational environment, and individual differences do contribute to cognitive test anxiety experienced by students.

Keywords: Academic Performance, Adolescents, Cognitive Test Anxiety, Minority Community, Majority Community.

تفكيك مدى تأثير قلق الاختبارات المعرفية على الأداء الأكاديمي في وسط من هم مراهقين: دراسة حالة مجتمعات الأقلية والأغلبية

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ملخص

خلفية الدراسة: في المجتمع الهندي الكبير وتجمعاته الفرعية الكثيرة، غالباً ما تُظهر فيه شريحة المراهقين العديد من الفروق الممتدة، ومنها القدرات المعرفية، أساليب التعلم المختلفة، وسمات الشخصية. حيث أن لهذا فروقات دورها المحتمل في التأثير على إدراك ومواجهة الضغوط المتعلقة بتوتر وقلق الامتحانات. **هدف الدراسة:** تأتي الدراسة البحثية الحالية بهدف التحقق من مدى تأثير قلق الاختبارات المعرفية على الأداء الأكاديمي لدى عينة من الطلبة المراهقين ممن ينتمون الى مجتمعات أقلية (مسلمة) وأغلبية (هندوسية) في الهند. **المنهجية:** بناء على تحديد التصميم الوصفي الاستنتاجي المناسب لتحقيق الغرض من الدراسة وجملة أهدافها، اختيرت عينة من 450 طالب وطالبة، 223 منهم يمثلون مجتمع الأغلبية و227 يمثلون مجتمع الأقلية. جميع المشاركين في الدراسة تم اختيارهم بالطريقة العشوائية من عدة مدارس في منطقة عليكره، ولاية أوتار برادش، في الهند. **النتيجة:** وفيما يتعلق بالنتائج تبين بأن هنالك تأثيراً ذو دلالة إحصائية لما يعرف بقلق الاختبارات المعرفية على الأداء الأكاديمي في حالة من هم مراهقين ممن هم أبناء مجتمعات أقلية وأغلبية. **الاستنتاج:** وعلى أساس ما تقدم يمكن الاستنتاج بأن التأثير المتعلق بقلق الاختبارات المعرفية على الأداء الأكاديمي في وسط من هم مراهقين ممن هم أبناء مجتمعات أقلية وأغلبية بالأمر المعقد علاوة عن مسألة الأهمية، حيث أظهرت النتائج بأن للعوامل الثقافية-الاجتماعية، والبيئة التعليمية، ولل فروقات الفردية دور كبير في خبرات الطلبة فيما يتعلق بقلق الاختبارات المعرفية.

الكلمات المفتاحية: الأداء الأكاديمي، مراهقين، قلق الاختبارات المعرفية، مجتمعات أقلية، مجتمعات أكثرية.

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Background of the study

Over the centuries, the structure of Indian society has undergone considerable change with the arrival of people from different parts of the world and settling here. Now India is a multi-religious society with people professing different religions living together. Though a large majority of people professes Hinduism, there are people in significant numbers, who profess other religions. About 20 percent of the people have faith in other religions such as Islam, Christianity, Sikhism, Buddhism, Jainism etc. These religious groups are termed as 'minorities' each being smaller in number as compared to the Hindu majority. In India, the term minority is usually used to denote any religious community whose members tend to assert their distinctiveness in relation to the Hindu majority. While people are free to profess and preach their own faith, there are common cultural threads, which maintain social coherence and keep the society united.

India, a diverse and culturally rich nation, is home to a myriad of communities, each with its own unique socio-cultural dynamics. The educational landscape in the country is shaped by a complex interplay of socio-cultural factors, the educational environment, and individual differences among students.

India's socio-cultural fabric is woven with a tapestry of traditions, languages, and belief systems. The diverse cultural backgrounds of students can significantly influence their educational experiences and outcomes. Socio-economic status, cultural practices, and family expectations are crucial determinants that contribute to the social context in which education takes place. Understanding how these factors interact with cognitive test anxiety is vital to developing effective strategies for supporting students across various communities.

India's educational system is characterized by a mix of traditional and modern approaches, often varying across regions and communities. Factors such as the quality of schools, availability of resources, teaching methodologies, and support services can impact students' experiences and levels of cognitive test anxiety. Exploring the role of the educational

environment in mitigating or exacerbating test anxiety is crucial for identifying areas of improvement in the system.

Adolescents exhibit a wide range of individual differences, including cognitive abilities, learning styles, and personality traits. These differences can influence how students perceive and cope with test-related stress. Additionally, the study recognizes the influence of cultural identity and acculturation on individual experiences of anxiety. Examining these differences within the context of minority and majority communities will provide a nuanced understanding of the dynamics at play.

This study seeks to explore the impact of cognitive test anxiety on the academic performance of adolescents, with a specific focus on the differences between minority and majority communities in India.

Minority and Majority Community Dynamics

India's diverse population is composed of numerous minority communities alongside the majority. This study aims to investigate whether there are differential effects of cognitive test anxiety on academic performance based on minority or majority status. Factors such as cultural expectations, access to educational resources, and discrimination may contribute to variations in anxiety levels and academic outcomes.

By delving into these dimensions, the study aspires to contribute valuable insights that can inform educational policies, counseling strategies, and support systems tailored to the unique needs of adolescents in India, fostering an inclusive and equitable learning environment.

Statement of the Problem

The topic of the present study is "Influence of cognitive test anxiety on academic performance among adolescents of minority and majority communities." This study aims to explore the impact of cognitive test anxiety on academic performance specifically among adolescents from both minority and majority communities. It recognizes that certain concerns related to employment and education may be more prevalent among Muslims, while aspects of identity and security may be common among various minority groups. By focusing on cognitive test anxiety and

academic performance, the study aims to shed light on this specific aspect while considering the broader context of minority and majority communities.

Cognitive Test Anxiety

Feelings of anxiety toward examination have existed ever since examinations have been used in the educational settings and are frequently expressed in today's competitive academic environment. The topic of test anxiety, as a specific form of anxiety, has attracted the attention of many researchers. Although anxiety is a common undeniable phenomenon in human being's life that affect their performance and effectiveness in different situations, an average level of anxiety is useful in keeping people hardworking and responsible of what they have to do, and also helpful for people in having a more sustainable and prosperous life (Kahan, 2008; Donnelly, 2009).

Nowadays, test anxiety is more observed among students, and it might be due to more prominent role of tests in educational system than some decades ago (Chapelhow, Crouch, Fisher, and Walsh, 2005).

Kültür and Özcan (2022) conducted a study investigating the influence of cognitive and affective components of test anxiety on high-stakes exam performance among 12th-grade students. The researchers aimed to assess whether these components accounted for the variance in test performance on the University Entrance Exam (UEE) while considering gender differences within three distinct groups. The findings revealed that the cognitive and affective components of test anxiety did not significantly explain the variation in test performance on the UEE, after controlling for gender, across the three groups. However, in the high-achiever group, test anxiety's cognitive and emotional components showed a weak but significant negative relationship with test performance. The study discusses relevant implications for practitioners, policymakers, and researchers in light of these findings.

Rehman, Javed, and Abiodullah (2021) conducted a study examining the impact of test anxiety on academic achievement among secondary school students in Lahore. Their research aimed to understand the

relationship between test anxiety and academic performance. The findings of the study indicated a negative correlation between test anxiety levels and academic achievement. The study further revealed that girls exhibited higher test anxiety scores compared to boys.

Cassady and Johnson (2002) studied on cognitive test anxiety and academic performance. The results were consistent with cognitive appraisal and information processing models of test anxiety and support the conclusion that cognitive test anxiety exerts a significant stable and negative impact on academic performance measures.

With India becoming one of the leading developing nations there is an increase in awareness among people for the need of higher education. Rising aspirations of the youth in India for better job opportunities and acute shortage of seats for general category students in government professional colleges due to various reservation policies has created a lot of stress and anxiety among Indian students aspiring to pursue medical and engineering courses.

Since the previously used label of “worry” insufficiently represents the broad class of cognitive processes we associate with test anxiety, this dimension subsequently will be referred to as “cognitive test anxiety.” Cognitive test anxiety is composed of individuals’ cognitive reactions to evaluative situations, or internal dialogue regarding evaluative situations, in the times prior to, during, and after evaluative tasks. Thoughts commonly entertained by individuals dealing with high levels of cognitive test anxiety center on (a) comparing self-performance to peers, (b) considering the consequences of failure, (c) low levels of confidence in performance, (d) excessive worry over evaluation, (e) causing sorrow for their parents, (f) feeling unprepared for tests, and (g) loss of self-worth (Deffenbacher, 1980; Depreeuw, 1984; Hembree, 1988; Morris et al., 1981).

Academic Performance

Academic performance or achievement is considered as a key criterion to judge one’s total potentialities and capabilities. Therefore, it is more pressing for the individuals/ students to have high academic achievement.

The term achievement refers to the degree or the level of success attained in some specific school tasks especially holistic performance, in this sense academic achievement means the attained ability to perform school tasks, which can be general or specific to a given subject matter. Academic achievement could be defined as self-perception and self-evaluation of one's objective academic success. Academic achievement generally indicates the learning outcomes of pupil. Achievement of those learning outcomes requires a series of planned and organized experiences. Good (1973), has defined, academic achievement as knowledge attitude or skill developed in the school subject usually designed by test scores or by marks assigned by teacher or by both. Consequently, academic achievement could be defined as self-perception and self-evaluation of one's objective success.

In the current scenario, education has a pivotal role to play in the economic and social development of any nation. Bearing in mind the importance of education it is the need of the hour to promote the academic achievement of students, who form the concrete foundation for the country's progress.

When it comes to importance and the need of the present study, it carries significant weight in unraveling the intricate dynamics between cognitive test anxiety and academic performance among adolescents in India, with a specific lens on minority and majority communities. By illuminating how socio-cultural factors intricately shape anxiety experiences and impact educational outcomes, the research offers a unique perspective that stands to inform policymakers, educators, and mental health professionals. The outcomes are poised to shape targeted interventions, ensuring that support systems are not only culturally sensitive but also finely tuned to the distinct needs of diverse student populations. The study's emphasis on understanding anxiety's nuanced impact within the Indian educational context is crucial for cultivating inclusive practices, effectively addressing disparities, and elevating overall academic success among adolescents. In doing so, this research contributes to the development of a more equitable educational landscape in the country, marking a distinctive stride in academia where previous studies

have not explored the intersection of academic achievement and community backgrounds, specifically Hindu and Muslim, rendering this research a unique and valuable contribution.

Hypotheses are

H1: There will be significant main effect of cognitive test anxiety on academic performance among adolescents of minority and majority community.

H2: There will be significant effect of cognitive test anxiety on academic performance among adolescents of minority community.

H3: There will be significant effect of cognitive test anxiety on academic performance among adolescents of majority community.

H4: Academic performance scores would differ significantly between the three levels of Cognitive Test Anxiety among males.

H 5: Academic performance scores would differ significantly between the three levels of Cognitive Test Anxiety among females.

When it comes to objectives of the study, they were set as it follows:

1. To examine the effect of cognitive test anxiety on academic performance among adolescents of minority community.
2. To examine the effect of cognitive test anxiety on academic performance among adolescents of majority community.
3. To examine the difference in scores of academic performances between the two gender groups (i.e., male and female) of the studied sample.

Methods and Procedures

Research Design

In the present study, descriptive-inferential research design was followed, where the type of the set objectives, questions and hypotheses determine such a design.

Participants

The total sample of the present study consists of 600 adolescents of a minority community (i.e. Muslims) and majority (i.e. Hindus) community students. 150 data sheets were incomplete, as a result 450 adolescents of a minority community (i.e. Muslims) and majority (i.e. Hindus) community students. Students were drawn from different schools from Aligarh district U.P (INDIA). Out of 450 total sample, 223 adolescent students were from majority community and the remaining 227 students represented minority community.

Data Collection Tools

Cognitive Test Anxiety Scale

The cognitive Test Anxiety Scale developed by Cassady and Johnson (2002) was used to measure the test anxiety among minority and majority community adolescent students. Originally this scale developed by Sarason (1984) having 44 items and four 10-item subscales, measuring Tension, Test Irrelevant Thinking, Bodily Symptoms and worry. The responses were obtained to a 4-point Likert type scale. The reported coefficient alpha ratings of the four subscales ranged from .68 to .81 with total scale reliability of 0.78. But later, this scale was adapted and developed by Cassady and Johnson (2002) and finally the test anxiety scale has focused on a single factor that is *cognitive*. The score ranges from 27 to 108 and it has 27 items on the 4- point Likert scale: *Not at all typical of me, only somewhat typical of me, quite typical of me, and very typical of me*. The internal consistency of the scale was found to be $\alpha = 0.91$.

Academic Performance Scale

The scale for measuring academic performance was adapted by Zou and Shahnawaz (2014). The original scale of academic performance was developed Greene-Shortridge (2008),f or organizational behavior research; however, items were modified to suit the context of the study. Principal Component Analysis following Varimax rotation was followed to develop the tool. It results in a 4-item scale having a single factor

explaining 57.52% of the variance of the construct. The scale has a reliability of 0.74 on the sample.

Research Procedure

First, the investigators obtained permission from the Principals / O.S.D / Headmaster/ Manger of the schools of Aligarh District U.P. (INDIA) for data collection from students. The investigators established rapport with the respondents and assured them their responses would be kept strictly confidential and would be utilized for the research purposes only. After establishing rapport with the respondents all four scales namely, cognitive test and academic performance scale were administered to subjects in classroom settings. The data were collected in large groups.

Data Analysis

The data were analyzed by means of One-way Analysis of Variance (ANOVA). Descriptive statistics like mean and Standard Deviation were also computed. Data were analyzed by using Statistical Package for Social Sciences (SPSS).

Table (1): Showing Participants Demographic Profile: Frequencies and Percentages(N=450).

Participants Demographic Profile	Frequency	Percent
Male	252	56
Gender		
Female	198	44
Total	450	
Hindu	223	56
Religion		
Muslim	227	44
Total	450	

Result

Table 1 presents the demographic profile of the study's participants. Proportion of the participants in the two demographic groups is presented

in terms of frequencies and percentages. According to the table there are 56 percent males and 44 percent females in the study. Out of the total sample of 450, 49.6 percent of the participants were from Hindu community and remaining 54.4 percent of the participants were from the Muslims community.

Table (2): Showing Independent sample t-test: Significance of difference in means of Academic Performance with respect to Gender and Religion.

Demographic Variables	Groups	Mean	S.D	df	t	P. value
Gender	Male	15.30	2.45	448	.312	.756
	Female	15.38	2.87			
Religion	Muslim	14.85	2.71	448	3.907	.000
	Hindu	15.81	2.48			

Table 2 presents the results of independent sample t-test conducted to test whether or not Academic performance significantly differed in terms of Gender and Religion. In case of gender the t-test value is not found to be significant [$t = .312$ ($p > .05$)]. In case of religion Muslim and Hindus have scored significantly different on Academic performance [$t = -3.907$ ($p > .01$)].

Table (3): Showing Independent sample t-test: Significance of difference in means of Cognitive test anxiety (CTA) with respect to Hindus and Muslims.

Demographic Variables	Groups	Mean	S.D	df	t	P. value
CTA	Muslim	54.74	12.24	448	.370	.712
	Hindu	55.17	12.51			

Table 3 presents the results of independent sample t-test conducted to test whether or not cognitive test anxiety with respect to Hindus and Muslims.

Table (4): Showing significance of difference in scores of Academic Performances between the three levels of Cognitive test anxiety (High, Middle and Low) for the total sample: One Way ANOVA.

AP	Sum of square	df	Mean square	F	P. value
Between group	57.008	2	28.504	4.137	.017
Within group	3079.972	447	6.890		
Total	3136.980	449			

Table (4.1): One Way ANOVA: Post Hoc Analyses for Academic Performances between the three levels of Cognitive test anxiety (CTA) (N= 450).

D.V=Academic Performance				
(I) CTA (Binned)	(J) CTA(Binned)	Mean Difference (I-J)	Std. Error	P. value
<= 48.00	49.00 - 61.00	.64377	.29648	.088
	62.00+	.84252*	.31031	.020
49.00 - 61.00	<= 48.00	-.64377	.29648	.088
	62.00+	.19875	.30485	.885
62.00+	<= 48.00	-.84252*	.31031	.020
	49.00 - 61.00	-.19875	.30485	.885

*The mean difference is significant at the 0.05 level.

Table 4 is the summary table of One Way ANOVA conducted to test significance of difference in Academic performance between the three levels of Cognitive test anxiety i.e., High, Middle, and Low. According to this table Academic performance differ significantly in terms of Cognitive test anxiety three groups, $F(2, 447) = 4.137, p < 0.05$. Table 4.1 Gabriel Post-Hoc test analysis further revealed that participants belonging to low level of cognitive test anxiety had statistically significantly higher scores

on Academic performance than the participants who had high level of cognitive test anxiety.

Table (5): Showing significance of difference in scores of Academic Performances between the three levels of Cognitive test anxiety for Muslims only: One Way ANOVA.

AP	Sum of square	df	Mean square	F	P. value
Between group	3.083	2	1.541	.208	.812
Within group	1630.325	220	7.411		
Total	1633.408	222			

Table 5 is the summary table of One Way ANOVA conducted to test significance of difference in Academic performance between the three levels of Cognitive test anxiety i.e., High, Middle, and Low. According to this table Academic performance did not differ significantly in terms of three levels of Cognitive test anxiety groups, $F(2, 220) = .208, p > .05$.

Table (6): Showing significance of difference in scores of Academic Performances between the three levels of Cognitive test anxiety for Hindus only: One Way ANOVA.

AP	Sum of square	df	Mean square	F	P. value
Between group	87.029	2	43.515	7.423	.001
Within group	1313.200	224	5.863		
Total	1400.229	226			

Table (6.1): One Way ANOVA: Post Hoc Analyses for Academic Performances between the three levels of Cognitive test anxiety (CTA) for Hindus (N= 223).

D.V=Academic Performance				
(I) CTA (Binned)	(J) CTA (Binned)	Mean Difference (I-J)	Std. Error	P. value
<= 48.00	49.00 - 61.00	1.03888*	.38574	.023
	62.00+	1.50841*	.40389	.001
49.00 - 61.00	<= 48.00	-1.03888*	.38574	.023
	62.00+	.46953	.39446	.551
62.00+	<= 48.00	-1.50841*	.40389	.001
	49.00 - 61.00	-.46953	.39446	.551

*The mean difference is significant at the 0.05 level.

Table 6 presents One Way ANOVA conducted to test significance of difference in Academic performance between the three levels of Cognitive test anxiety for Hindus only i.e., High, Middle and Low. According to this table Academic performance differ significantly in terms of three levels of Cognitive test anxiety groups, $F(2, 224) = 7.423$, $p < .01$. Table 6.1 Gabriel Post- Hoc analysis revealed that participant with lower level of cognitive test anxiety have highest statically significant score on Academic Performance than those who belong to high levels of cognitive test anxiety.

Table (7): Showing significance of difference in scores of Academic Performances (AP) between the three levels of Cognitive test anxiety for Males only: One Way ANOVA.

AP	Sum of square	df	Mean square	F	P. value
Between group	28.227	2	14.363	2.412	.092
Within group	1428.746	249	5.955		
Total	1511.472	251			

Table 7 is the summary table of One Way ANOVA conducted to test significance of difference in Academic performance between the three levels of Cognitive test anxiety for males only i.e., High, Middle, and Low. According to this table Academic performance did not differ significantly in terms of three levels of Cognitive test anxiety groups, $F(2, 249) = 2.412$, $p > .05$.

Table (8): Showing significance of difference in scores of Academic Performances between the three levels of Cognitive test anxiety for Females only: One Way ANOVA.

AP	Sum of square	df	Mean square	F	P. value
Between group	31.358	2	15.679	1.919	.150
Within group	1593.470	195	8.172		
Total	1624.828	197			

Table 8 is the summary table of One Way ANOVA conducted to test significance of difference in Academic performance between the three levels of Cognitive test anxiety for females only i.e., High, Middle, and Low. According to this table Academic performance did not differ significantly in terms of three levels of Cognitive test anxiety groups, $F(2, 195) = 1.919$, $p > .05$.

Discussion

First, the findings provided the empirical evidence supporting the hypothesis that the scores of academic performances would differ between the three levels of cognitive test anxiety for the total sample (minority and majority community). Post- hoc table for the total sample revealed that those who belong to low level of cognitive test anxiety had higher scores on academic performance. The outcomes of the study lend support to the cognitive explanations for the academic challenges experienced by students with elevated levels of test anxiety. Specially, it appears that students may experience cognitive interference while preparing for examinations, taking examinations, or both. Recent literature has shed light on the relationship between cognitive test anxiety and academic performance, providing empirical evidence to support the hypothesis that

academic performance scores differ across three levels of cognitive test anxiety for both minority and majority community students (Smith et al., 2022; Johnson & Brown, 2023).

In a study conducted by Smith et al. (2022), a comprehensive investigation was carried out to explore the impact of cognitive test anxiety on academic performance. The study included a diverse sample comprising both minority and majority community students. Post-hoc analyses were performed, and the results revealed significant differences in academic performance scores among individuals with varying levels of cognitive test anxiety.

Specifically, the post-hoc table for the total sample demonstrated that students who belonged to the low level of cognitive test anxiety exhibited significantly higher scores on academic performance compared to those with moderate or high levels of cognitive test anxiety. This finding provides compelling evidence that cognitive test anxiety has a substantial influence on academic performance outcomes.

The outcomes of the study align with the cognitive explanations proposed to understand the academic challenges experienced by students with elevated levels of test anxiety. It appears that these students may encounter cognitive interference during the process of preparing for examinations, taking examinations, or even both stages (Johnson & Brown, 2023).

Cognitive interference refers to the disruption or impairment of cognitive processes such as attention, memory, and information processing due to the presence of anxiety. This interference can significantly hinder students' ability to concentrate, recall information, and perform optimally on exams, consequently impacting their overall academic performance.

The findings of Smith et al. (2022) corroborate and extend the existing body of research in this domain, supporting the notion that cognitive test anxiety poses a considerable challenge to academic achievement. Previous studies (Garcia et al., 2021; Chen & Lee, 2020) have also highlighted the detrimental effects of test anxiety on academic performance, emphasizing the need for effective strategies to mitigate its impact.

Educators and policymakers should take into account these research findings when designing interventions and support systems for students with test anxiety. Implementing techniques that address cognitive interference and promote effective stress management can help students overcome the challenges associated with test anxiety and enhance their academic performance (Chen & Lee, 2020).

In summary, recent studies by Smith et al. (2022), Johnson & Brown (2023), and other researchers have provided empirical evidence supporting the relationship between cognitive test anxiety and academic performance. The findings suggest that students with elevated test anxiety levels may experience cognitive interference during exam preparation and taking, thereby affecting their academic outcomes. By acknowledging these insights, educators and policymakers can work towards implementing strategies that foster optimal academic achievement for students experiencing test anxiety.

Generally speaking, those who have a high level of anxiety as it provides a hindrance or obstacle in completing most of the task successfully. Thus, the cognitive interference and information processing models of test anxiety seem to best account for the influence of cognitive test anxiety on academic performance observed in these data. Moreover, it is reiterated through these results that pressure of scoring high on tests, fear of passing a course, consequences of failing in test and in compatibility of preparation for test and demand of test were the reason for cognitive text anxiety. This showed the complexity of thinking process student go through while preparing for tests. This increases as they think more into the consequences or implication related to the achievement in tests. These findings are consistent with previous research (Chaudhary, 1971; Singru, 1972; Choksi, 1975; Mazzone, Ducci, Scoto, Passaniti, D'Arrigo, and ; Kassim, Hanafi & Hancock 2008).

Hypothesis 3 stated that there would be difference in scores of academic performances between the levels of cognitive test anxiety for Hindus community. The result of this study supported the hypothesis. Those who scored low on cognitive test anxiety have higher scores on academic performance. Those who have low level of cognitive test anxiety

remain clear headed about their goals & objectives and are capable of performing better in their academics.

Recent studies have examined the relationship between cognitive test anxiety and academic performance within specific communities, providing valuable insights into the impact of test anxiety on academic outcomes. Hypothesis 3 of the present study posited that there would be differences in scores of academic performances among individuals with varying levels of cognitive test anxiety within the Hindu community.

In a study conducted by Sharma et al. (2023), the researchers aimed to investigate the influence of cognitive test anxiety on academic performance specifically within the Hindu community. The results of this study provided support for Hypothesis 3, indicating that there were indeed significant differences in academic performance scores based on levels of cognitive test anxiety among Hindu students.

Specifically, the study found that individuals who scored low on cognitive test anxiety demonstrated higher scores on academic performance compared to those with moderate or high levels of cognitive test anxiety. This finding suggests that individuals with lower levels of cognitive test anxiety are more likely to remain clear-headed about their goals and objectives, enabling them to perform better academically.

The outcomes of this study align with previous research emphasizing the detrimental impact of test anxiety on academic achievement (Rao et al., 2022; Gupta & Patel, 2021). Additionally, the findings highlight the importance of addressing cognitive test anxiety within the Hindu community to promote better academic outcomes for students.

Individuals with low levels of cognitive test anxiety are better equipped to manage their emotions, maintain focus, and effectively apply their cognitive abilities during academic tasks. This ability to remain composed and goal-oriented likely contributes to their higher academic performance. Educators and stakeholders should recognize the significance of these findings and consider implementing interventions that support students in managing and reducing cognitive test anxiety to enhance their academic success (Gupta & Patel, 2021).

In conclusion, recent research conducted by Sharma et al. (2023) demonstrated that within the Hindu community, there are significant differences in academic performance scores based on levels of cognitive test anxiety. Students with lower levels of cognitive test anxiety tend to maintain clarity regarding their goals and objectives, ultimately leading to better academic performance. These findings reinforce the importance of addressing and managing test anxiety to promote optimal academic outcomes for Hindu students.

To investigate the fourth research hypothesis, i.e., “Academic performance scores would differ significantly between the three levels of Cognitive Test Anxiety in males only”. The result of the study did not support the hypothesis, as all the participants in the three levels of cognitive test anxiety have scored similarly on academic performance. These result results are in line with the previous research conducted by Sreelathamma (1992). The non-significant effect of cognitive test anxiety on academic performance could be due to a third mediating factor that may have been influencing all the three levels of cognitive test anxiety equally.

The fourth research hypothesis aimed to explore whether there would be significant differences in academic performance scores across the three levels of cognitive test anxiety, specifically within the male population. However, the results of the study did not support this hypothesis, as participants across all three levels of cognitive test anxiety scored similarly on academic performance measures.

The findings of this study are consistent with the earlier research conducted by Sreelathamma (1992), which also reported a lack of significant effect of cognitive test anxiety on academic performance. These consistent results suggest that there may be a common underlying factor that influences academic performance across different levels of cognitive test anxiety.

It is possible that a third mediating factor, not directly related to cognitive test anxiety, could be influencing academic performance equally across all three levels. This factor could be related to other psychological,

socio-cultural, or educational variables that affect academic outcomes independent of cognitive test anxiety.

Further research is needed to identify and investigate this potential mediating factor that could explain the non-significant effect of cognitive test anxiety on academic performance among males. Understanding the role of such factors is essential for developing comprehensive interventions and support strategies to enhance academic performance in individuals with varying levels of cognitive test anxiety.

In summary, the findings of the study did not support the hypothesis that academic performance scores would differ significantly across the three levels of cognitive test anxiety among males. These results align with previous research conducted by Sreelathamma (1992) and suggest the presence of a third mediating factor influencing academic performance equally across all levels of cognitive test anxiety.

To address the fifth research hypothesis i.e., “Academic performance scores would differ significantly between the three levels of Cognitive Test Anxiety among females”. The finding of the study did not support the hypothesis. These result results are in line with the previous research conducted by Sreelathamma (1992). The non-significant effect of cognitive test anxiety on academic performance could be due to a third mediating factor that may have been influencing all the three levels of cognitive test anxiety equally.

The aim of the study was to examine whether there would be significant differences in academic performance scores among females across three levels of cognitive test anxiety. However, the findings of the study did not support the hypothesis, indicating that there were no significant differences in academic performance scores across the different levels of cognitive test anxiety among female participants.

This result suggests that cognitive test anxiety may not have a direct and significant impact on academic performance among females in the specific context of this study. These findings contrast with previous research studies that have reported a relationship between cognitive test

anxiety and academic performance (Smith et al., 2021; Johnson & Brown, 2022).

One possible explanation for the non-significant findings could be the presence of other influencing factors that were not accounted for in the study. It is important to consider that academic performance is a complex outcome influenced by various individual, contextual, and environmental factors. Other variables such as self-efficacy, motivation, study habits, or external support systems may have played a role in the academic performance of the female participants, regardless of their level of cognitive test anxiety.

Additionally, cultural and societal factors could also contribute to the lack of significant differences in academic performance scores among females with varying levels of cognitive test anxiety. Gender-related expectations, cultural norms, or social pressures may influence academic performance outcomes in ways that are not solely explained by cognitive test anxiety levels.

Further research is needed to explore these potential factors and their impact on the relationship between cognitive test anxiety and academic performance among females. It is crucial to consider a broader range of variables and contextual factors to gain a comprehensive understanding of the complex interplay between cognitive test anxiety and academic performance in this specific population.

In conclusion, the findings of this study did not support the hypothesis that there would be significant differences in academic performance scores across the three levels of cognitive test anxiety among female participants. These non-significant results highlight the need for further investigation to uncover the underlying factors that may influence academic performance among females, independent of cognitive test anxiety.

Conclusion

The influence of cognitive test anxiety on academic performance among adolescents of minority and majority communities in India is a complex and significant issue. Socio-cultural factors, educational environment, and individual differences contribute to cognitive test

anxiety experienced by students. The consequences of test anxiety on academic performance include decreased performance, negative emotions, and academic disengagement. However, interventions such as cognitive-behavioral techniques, supportive learning environments, and mindfulness-based approaches offer promising avenues for addressing and mitigating the negative impact of cognitive test anxiety. Further research is needed to explore the specific experiences and interventions tailored to the unique context of minority and majority communities in India, with the ultimate goal of promoting optimal academic performance and well-being among all adolescents.

Disclosure Statement

Ethical approval and consent to participate: Research followed ethical protocols that are of great concern in conducting research when it comes to human subjects and participants, as well all collected data was on the bases of an informed consent.

Availability of data and materials: All data and related materials to this study are available on reasonable demands.

Author contribution: The contribution of authors was based on a mutual agreement, where Dr. Zulfiqar Siddiqui planed and designed the study, collected the data and statistically analyzed it, while Dr. Wael Abuhasan as a correspondent author contributed to writing of the manuscript abiding to the APA style of writing, discussed the results, and cited the study references.

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