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Acadamic Stress And Associated Factors Among Female Vocational Trainees

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Abstract

For many years, researchers have studied the different types of stress experienced by students The purpose of this study is to examine the causes of academic stress among vocational school students. Furthermore, the study strives to investigate in detail ways in which academic activity can elevate stress levels. The sample comprises 120 female students of 4 different streams from a vocational training institute in Thiruvananthapuram of Kerala State. The respondents are given a questionnaire of 20 statements about academics. The factor analysis of the responses identified four factors: pressures to perform, perception o workload, student's academic self-perceptions, and time constraints. In terms of the factor scores and weighted means, respondents prioritized 'Workload perception' and 'Academic Self Awareness' as prominent influencing factors of academic stress among female vocational trainees.

Keywords: Academic Stress, Vocational students, Correla- tion, Weighted mean component

1. Introduction

Academic stress, and its implications for mental health in students, has become a global issue over the last decade. Many psychologists have conducted extensive research on the effects of stress and concluded that the subject needs more attention. Valid and theoretically-referenced measures of student's stress are critical. Education has evolved so that students face new challenges, which call for greater effort from students. Furthermore, the society places heavy pressure on students to carry out various duties and responsibilities that are ambiguous, uncertain, and unwinnable, leading to high stress on students. Students' mental health is a crucial public health concern because healthy students will be the healthier future workforce.

The Indian education system, which is one of the most comprehensive globally, is divided into two broad categories; a core network of schools, colleges, higher education; and non- core support services such as pre-schools and vocational training institutes, and coaching centres. Training programs focused on specific skills or trades are classified as vocational education. Technical training disregards traditional academic courses and prepares students for specific careers. The learner directly builds up proficiency in a particular technology or technique through technical education. In this work, stress among vocational training students is examined, and associated stress factors are evaluated. The frequency of workshops organized for Stress Management, research, and studies, etc. are reflections of the upsurge of stress-based issues in the last few years. As a result, students must learn how to handle stress to overcome their barriers and reach their destinations.

2. Literature Survey

Stress results when a person's capacity to handle it exceeds his/her ability to cope. Anxiety resulting from long-term stress can lead to illnesses. Stress is the physical and emotional toll our bodies undergo as they adapt to an ever-changing environment; it can positively or negatively affect our daily lives. Whenever one constructively uses stress, it drives them to take action. [1] Reports that it can trigger feelings of depression,

anxiety, rejection, and frustration that can contribute to health problems. Stress is among the most prevalent syndromes throughout the world, and it is mostly ignored because of its detrimental impact on mental health.

Stress can lead to depression and anxiety, as well as mental health issues. Emotional intelligence can also be affected by stress. We become less sensitive to how other people feel and less capable of expressing our feelings and communicating. A positive outlook and the ability to adapt to change are also threatened when you are under stress [2].

A wide variety of life factors can affect a student's stress level, from sleeping habits to heavier workloads [3]. Stress affects individuals differently, as does the meaning of stress to each individual. People perceive it as a feeling of pressure, anxiety, or anger resulting from several events or situations. Stress is considered to be a psychological phenomenon resulting from an individual's reaction to any threatening event.

Students frequently reported that heavy course loads were the most significant factors contributing to their stress and anxiety [4]. Besides, students reported poor exam-taking skills and little anxiety-reduction capabilities [5]. The effects of stress on students can include, uneasiness, solitariness, unhappiness, desperation, annoyance, hypersomnia as a consequence of increased academic, personal, social, and moral pressures. [6]. Many students struggle with the escalating stress that comes with adjusting to life in college, whereas some can adjust to it.

Responsibilities associated with work during school would quickly lead to a challenging academic workload, resulting in tension. This is especially challenging given that one would rely on the career for financial support. A

student's life is very different at times than you would expect because of personal factors contributing a lot to their stress levels. Each person experiences these factors differently, which results in a different set of perceptions, attitudes, and behaviours [7].

The topic of relationships and one's ties is such a broad one that can affect nearly any aspect of life. Human relationships talk about how people are connected. The connections may be biological, romantic, legal, genetic, and the like. People can sometimes become burdened by this bond and suffer from relationship abuse. Relationships might seem apparent, but long-term, they cause more stress than one can imagine, especially when students are involved.

It is common for students to experience performance pressure. This may be because of the comparison with colleagues or the feeling that one must stand out from others. Several students report feeling pressured to make their families proud. Children may be put under pressure by parents seeking to prevent them from failure. This group of parents has long been known as curling parents. Several studies also report that children are forced to pursue courses based on parental compulsion rather than their own interests.

In [8] reported that admissions procedures, strong parental expectations, inconvenient school hours, an unbalanced student-teacher ratio, the physical atmosphere of the class- room, dysfunctional student-teacher contact, strict disciplinary guidelines, nuanced tasks, instructional methodology, unconcerned teacher's demeanour, and an overemphasis on shortcomings rather than strengths were all variables that contributed to student tension.

Several studies have found that tension is induced by parental pressures and teacher demands at test time or when choosing whether to prepare for a potential job. Researchers suggest that parents are advised not to pressure their children into joining an educational program they do not prefer [9] Furthermore, parental guidance was believed to reduce tension and exam anxiety, since inadequate assessment would be less likely.

According to Hancock [10], and Hembree [11], negative test cognitions commonly cause students to underestimate their skills, which then leads to increased anxiety and poor results. The study's findings suggest that test anxiety is strongly influenced by self-perceptions, including general & academic self-perception.

A. Objectives

- To access the elements that give rise to academic stress in students engaged in vocational training.
- To determine which factor contributes most to students' stress levels.
- To assess whether mental stress and training courses of students are correlated.

B. Hypothesis

Educational Stream VS Stress Factors

H0: The educational stream of students has a significant

relationship with their stress level.

H1: The educational stream of students does not have a significant relationship with their stress level.

TABLE I: Sample characteristics

PARAMETRES AND CATEGORIES	N=120	PERCENTAGE
Gender		
Female	120	100.0
Marital Status		
Single	84	70.0
Married	36	30.0
Education		
Architecture Draftsman	40	33.3
COPA	40	33.3
Dress Making	20	16.7
Secretial Practice	20	16.7
History of Academic Failure		
Never	97	80.8
Less than twice	23	19.2
Satisfaction with the institutional learning environment		
Dissatisfied	5	4.2
Neutral	29	24.2
Satisfied	69	57.5
Very Satisfied	17	14.2
Satisfaction with the home environment		
Dissatisfied	3	2.5
Neutral	22	18.3
Satisfied	63	52.5
Very Satisfied	32	26.7
Satisfaction with Pursuing Course		
Dissatisfied	5	4.2
Neutral	32	26.7
Satisfied	74	61.7
Very Satisfied	9	7.5

3. Methods

A. Research background and framework

A transverse research and survey were carried out in March 2021 among the female students of a Vocational training Institute in Thiruvananthapuram. A self-managed and self- administered online-based questionnaire was developed in Google Forms and was circulated to the students of four courses in the institute via social media. All the responses and records were kept anonymous, and no personal information, including name, age, email, etc. were divulged in any means.

B. Materials and methods

Students in vocational training were distributed an online questionnaire developed using Google forms through social media platform. The entire details are kept confidential and do not reveal any identifying data to the general public, such as a person's name, age, phone number, or address. Only female students are in the chosen vocational training institute. The survey included 120 students doing four different courses in this institution. The survey began with socio-demographic questions and concluded with anxiety and stress-related questions.

TABLE II: Table for specification & sub-scale elements with PAS rating

SPECIFICATION AND SUBSCALE ELEMANTS	MEAN	STANDARD DEVIATION
Stresses associated with academic expectancy		
The Competition for scores among classmates is severe.	2.84	0.640
I am being criticized by my instructors for how I perform academically	2.83	0.873
Teachers expect too much from me	2.61	0.737
Work and exam-associated stress		
Classes and academic work are given sufficient time	3.42	0.816
The course has a heavy workload	2.98	0.750
Work assignments seems excessive to me	2.82	0.809
In case I fall behind, I won't be able to catch up	2.93	0.821
After work, I have plenty of time to relax	3.27	0.837
Exam questions are usually challenging	2.85	0.827
There is a limited amount of time to complete the examination	3.03	0.864
I am very stressed during examinations	3.23	0.772
Stresses associated to students perceptions of themselves academically		
I have confidence in my ability to succeed in my future career	3.59	0.750
The decision-making process is easy for me	3.38	0.734
I am concerned about failing courses this year	2.82	0.927
The anxiety I feel about exams is an indication of my character weakness	2.82	0.830
Despite passing my exams, I fear finding a job	3.04	1.064

Following the completion of a multiple-choice question, participants were directed to another secure page to view their answers. It took between two and three minutes to complete this online survey.

For this study, we used a psychometric analysis scale (PAS). According to a 5-point Likert scale, the participants were asked to rate their stress levels based on PAS. A series of sub-scales were used to characterize academic aspirations, workload, examinations, and self-perceptions to assess academic stress causes among vocational students. Table II demonstrates the three subscales of the PAS: (1) Subscale for academic aspirations (4 elements), (2) Subscale for exam and workload (8 elements), and (3) Subscale for educational achievement conception of students(6 elements). Students were also requested to submit personal information, such as their gender, marital status, and course of study. Furthermore, their physical and mental health, and satisfaction with their educational environment, were also assessed.

C. Analyzing the Data

The necessary analyses were carried out in IBM SPSS 26. Categorical variables were subjected to a descriptive analysis, and continuous variables were subjected to a mean (M) and standard deviation (SD). This study used the Chi-Square Test to determine whether the stream/course of students affected their stress levels. This p-value is assessed to be statistically significant when it is less than 0.05.

4. Results

120 participants filled up the questionnaire, in total. Table I provides demographic data. It includes student's data regarding marital status, education stream, history of academic failure, satisfaction with learning, and home environment. Out of 120 female students, 34 students are married, and86 students are single. Students doing vocational training in Architecture Draftsman (AD), Computer Operator and Programming Assistant, Dressmaking, and Secretarial Practice have participated in this survey. 97 students do not have a history of academic failure. Table II presents a summary of the results of student responses. Cronbach's alpha for all 16 items in the PAS was 0.781.

A. Factor analysis

The 16-item scale was subjected to several exploratory principal component analyses. The determinant loadings are in Table III along with the internal consistency reliability analysis.

1) Factor/Determinant 1: Factor 1 is the 'pressures to perform'. The internal consistency of this component is 0.6, and it consists of four items. The excessive stress resulted from excessive competition among fellow students, parents' perceptions, and teachers' criticisms of the student's scholastic performance. Parents try to achieve the goals they could not attain during their childhood through the children they have. These situations can put children into stressful environments and also lead to psychological problems like anxiety, depression, and stress for those who do not seem to be able to cope with such a high level of pressure.

2) Factor/Determinant 2: The second factor is the 'perception of work- load'. It has an internal consistency of 0.5, and it has four items. A person's workload is defined as the amount of work they are required to complete during a given period. Students need to fulfill academic workloads that include assignments, tutorials, classes, tests or examinations, quizzes, reports, and practical's. Anxiety and nervousness caused by heavy academic workloads can cause stress if they persist for a long time.

3) Factor/ Determinant 3: Factor 3 is 'academic self-Awareness'. The perception a student has of his or her

Intellectual skills is referred to as academic self-perception. It refers to confidence in one's abilities to succeed in an academic setting and a future career and confidence in one's abilities to make the right decisions as a student. Four items make up this assessment and its internal consistency is 0.5.

TABLE III: Rotated component matrix for the PAS scale

	Factor 1	Factor 2	Factor 3	Factor 4
The Competition for scores among classmates is severe.	0.701			
I am being criticized by my instructors for how I perform academically	0.558			
I am very stressed during examinations	0.672			
The anxiety I feel about exams is an indication of my character weakness	0.606			
Work assignments seems excessive to me		0.792		
The course has a heavy workload		0.833		
Despite passing my exams, I fear finding a job		0.754		
Exam questions are usually challenging		0.833		
I have confidence in my ability to succeed in my future career			0.725	
I am concerned about failing courses this year			0.794	
The academic decision-making process is easy for me			0.871	
In case I fall behind, I won't be able to catch up				0.684
After work, I have plenty of time to relax				0.836
Classes and academic work are given sufficient time				0.851
Teachers expect too much from me				0.669
There is a limited amount of time to complete the examination				0.490
Internal consistency and reliability for each determinant	*0.6*	*0.5*	*0.5*	*0.7*

TABLE IV: Pearson product moment correlations between the Stress factors and subscale

	F1	F2	F3	F4	Subscale 1	Subscale 2	Subscale 3
Determinant 1 (F1) : Performance constraints	1	0.209*	0.412**	0.627**	0.640**	0.574**	0.365**
Determinant 2 (F2) : Perceived Workload		1	0.288**	0.470**	0.602**	0.803**	0.469**
Determinant 3 (F3) : Academic self-awareness			1	0.067	0.102	0.338**	0.551**
Determinant 4 (F4) : Time limitations				1	0.435**	0.658**	0.546**
Subscale 1 (S1)					1	0.496**	0.259**
Subscale 2 (S2)						1	0.522**
Subscale 3 (S3)							1

*** Correlation is notable at level 0.01 (Two-tailed).*

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4) Factor/Determinant 4: Time restraint is the fourth factor that has an internal consistency of 0.7. Students' performance suffers when they are under time constraints. Basically, it is the pressure caused by not having enough time for lessons, not completing assignments, falling behind, and not having the time to calm down or relax.

The Pearson product- moment correlations and factor grades revealed a significant positive correlation ($p > 0.001$). Based on the analysis of Table IV, the three factors of the PAS have a significant correlation.

B. Chi-Square Test Results

A study was also conducted to determine whether stream-wise variations occurred in the students' stress levels. Data were collected from four academic streams: Architecture Draftsman (AD), COPA, Dressmaking, and Secretarial practice. Here, stream-wise dependence on each of the four stress factors is evaluated. Table V represents the results and analysis of the Chi-Square Test. It is found that the educational stream of the students has a significant relationship with their perceptions of Workload ($r=0.007$) and Academic Self Perception ($r=0.45$).

5. Discussions

Students enrolled in vocational training were assessed on the perception of stress using a 16-item scale. Overall internal consistency reliability of the scale was 0.78. Here, the elements on the scale attributed to academic stress are grouped into four determinants. The presence of significant

TABLE V: Obtained P value from Chi-Square Test analysis on stress determinants with Educational Stream

VARIABLES	PEARSON's CHI SQUARETEST 'r' VALUE
Educational Stream vs Determinant 1	0.832
Educational Stream vs Determinant 2	0.007
Educational Stream vs Determinant 3	0.044
Educational Stream vs Determinanat 4	0.756

TABLE VI: Stress Level and its percentage among the Edu- cational Stream

EDUCATIONAL STREAM	STRESS LEVEL			% OF STRESS
	Normal	Mild	Moderate	
Architecture Draftsman	30	8	2	25%
COPA	26	12	2	35%
Dress Making	17	2	1	15%
Secretial Practice	12	7	1	40%

correlations between the factors indicates that they have theoretical significance and coherence. The 4 derived determinants — Determinant 1, "Performance Constraints," Determinant 2, "Workload insight," Determinant 3, "Academic Self-Concept," and Determinant 4, "Time restrictions"— are technically substantial and connected to test anxiety.

Determinant 1 in this study, "Performance constraints," reflects the sense of academic tension as a result of solid expectations from teachers and parents, as well as social pressure to perform and compete. Under Factor 1, students are more worried about competition for grades among their peers. The most worrying aspects of Factor 2 were the size of the curriculum (Workload) and the complexity of examinations. In Factor 3, the student's anxiety is primarily due to fear of course failure. In Factor 4, students' most significant concern was whether or not the time allotted for classes and schoolwork was adequate.

In this analysis, we discovered that 69 students were satisfied with their learning environment at college, while 63 students were satisfied with their learning in the home environment. It was surprising to learn that about a quarter of the students were either uncomfortable with or uninterested in the course they were taking. The Internal consistency (Cronbach's alpha) for Determinant 1, 2, 3 and 4 are 0.6,0.5, 0.5 and 0.7 respectively. Furthermore, it was found that most students disagreed with the elements of stress related to academic expectations, found neutral towards stress associated with faculty, work, and examinations, and neutral towards stress associated with academic self-perceptions.

The results of the Chi-Square test support the notion that Educational Stream and determinants 2 and 3 (Perception of Workload and Academic Self Perception) are associated. In addition, neither Factor 1(Pressures to perform) nor Factor 4(Time restraints) were related to the educational stream.

Table VI, which shows the stress level and its percentage faced by the students among the Educational Stream, signifies that the students studying Secretial Practice were more stressed (40%) than the students studying COPA (35%), Architecture Draftsman (25%) and Dress Making (15%).

6. CONCLUSION

Education has evolved so that students face new challenges, which call for greater effort from students. Education also serves as a way for conveying a society's culture, knowledge, and perspective [12]. Although limited by study design, this study comprehensively examined the academic stress factors of Vocational training institute students. The data were gathered and analyzed quantitatively. A questionnaire was distributed among students of four academic streams in a women's Vocational training center in Thiruvananthapuram for this purpose.

It is concluded from the factor analysis that Factor 2, 'Perception of workload,' is the primary factor behind stress among the students. Essentially, workload perception is shaped by the learning environment, which in turn influences the students' approach to learning, the nature of our relationship with our instructors, and personal preferences and knowledge. According to the Chi-square analysis, the educational stream of a student has a significant association with the two stress factors 2 and 3, i.e., 'Perception of workload' and 'Academic Self Perception.' Specifically, the students of 'Secretarial Practice' and 'Computer Operation and Programming Assistant' experienced the highest level of stress due to these influencing factors.

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