

A CASE STUDY ON IMPACT OF STRESS MANAGEMENT TRAINING ON COLLEGE STUDENTS' ACADEMIC PERFORMANCE AND MENTAL HEALTH

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Abstract

In order to improve one's overall well-being, these psychological treatments aim to do many things. The study's goal was to determine whether and how stress-reduction programmes at Osmania University improved students' mental health and school performance. A control group and pre- and post-tests were part of the quasi-experimental methodology used. This is why we split 40 students from Tehran's stays at Osmania University into two groups, an experimental group and a control group, using a convenience sampling technique. Both groups were given a pre-test consisting of 84 questions on mental health and academic vigour using two separate questionnaires. Then, the test group participated in 10 sessions of stress management training while the control group got no treatment. After collecting post-test results from both groups, we examined them using descriptive and inferential statistics in SPSS. The results demonstrated that students' academic liveliness and psychological well-being improved considerably after receiving training in stress management skills ($p < 0.001$).

Keywords: students' mental health, students' academic success, Training and stress management .

Introduction

Education-related stress causes health problems that impair pupils' ability to study. Therefore, it was crucial to consider the aspects that can improve the students' physical and mental health by influencing their agreeableness and increasing their good psychological moods. Academic vigour is one of the main determinants of a person's resilience to the challenges of the modern educational system. Academic vitality refers to the ability to overcome the many obstacles one may encounter when studying. Having a strong feeling of inner vitality is characterised by one's tendency to act on impulse, rather than out of habit or habitual routine. The literature assessment of the studies conducted in Iran revealed a dearth of research on the elements encouraging academic vitality, despite the relevance of this variable in the effective confrontation of the hard academic time. Having a goal and working toward it is what gives life meaning. In order to have good relationships with people, you need to show warmth, satisfaction, confidence, and empathy. To grow as a person is to feel that you can and will continue to develop your skills and knowledge. Positivity and acceptance of one's many facets constitute what is known as self-acceptance. What we mean by "autonomy" is the capacity to make decisions for oneself and evaluate performance based on one's own standards of success. Furthermore, environmental mastery involves feeling competent and having the capacity to control the complicated world around. However, life skills education is one of the most influential factors in people's mental health and happiness. Many colleges and universities now include courses in stress management and other "life skills" in an effort to improve their students' physical and mental well-being. "The World Health Organization's primary motivation for promoting a life skills curriculum is in the domain of mental health". As a result, several groups work to encourage the spread of and assessment of life skills education programmes across the globe. Its goal is to help people of all ages improve their cognitive talents, including those needed for solving problems, managing emotions, being more self-aware, getting along with others, and dealing with stress. Among the list of life skills, teaching kids how to cope with difficult situations is crucial. "Students' positive psychological states, in particular their energy and mental well-being, were deemed to be significantly boosted by learning stress management techniques". Therefore, the purpose of this research was to determine whether or not teaching students to cope with stress had a positive influence on their academic performance and mental health while attending Osmania University as

Methodology

The research design included a quasi-experimental pre- and post-test. All of the students at Osmania University in Tehran in the autumn of 2015 were included as part of the study's analytical community. In experimental investigations, a group size of 15 participants was shown to be optimal for calculating the sample size. "The initial sample size for each group was 15, and this was later increased. The sample size of 20 persons ($n = 20$) was then examined for each group in order to boost statistical power and control the potential drop in the number of participants". Students at Osmania University were invited to participate in a non-random, voluntary sample. Informed permission and a desire to engage in the study were required, as were attendance at all sessions and cooperation in completing all assignments and instruments, as well as participants being between the ages of 18 and 35. Participants were disqualified if they did not meet one or more of the following criteria: they did not want to participate in the sessions, they missed more than three classes using the preparation method, they did not cooperate in completing assignments, and they were receiving psychological treatment or education outside of the scope of this study. The research included selecting a subset of Osmania University students at random, with their consent; if they matched the study's inclusion requirements, they were then randomly allocated to one of two groups (experimental or control). Since it was important to respect ethical issues, all participants were given detailed information about the study's goals and the potential benefits to their mental health before giving their informed permission and the experiment began. After that, the researcher gathered the participants' information and promised them their privacy would be protected. "Thereafter, 10 sessions of stress management training were provided to the experimental group whereas the control group got no treatment. Both groups were given a posttest at the conclusion.

The protocol of stress management training sessions is presented in **Table 1**.

Table 1 :Protocol of stress management skills training sessions

Session	Subject
First	Acquaintance of group members, practicing acquaintance, introducing stress, stress creating factors and responses to stress, and getting to know the physical effects of stress
Second	Raising awareness of the effects of stress and understanding the importance of this awareness and increasing awareness of the physical responses related to stress creating factors
Third	Explaining the relationship between thoughts, emotions, and physical senses, and providing numerous examples in different positions
Fourth	Introducing and identifying the common types of negative thoughts and cognitive distortions
Fifth	Challenging the common negative thoughts and cognitive distortions and replacing irrational thoughts with rational ones
Sixth	Instruction, practicing, and implementing effective coping strategies
Seventh	Continuing the training, practicing, and implementing of effective coping strategies
Eighth	Training and discussion about anger management, assertiveness, time management, and recording daily events
Ninth	Learning to use problem-solving skills in conflicts, discussing about the skills of saying "No", and delegating authority
Tenth	Learning the importance and understanding the benefits of social protection and an overview of the program

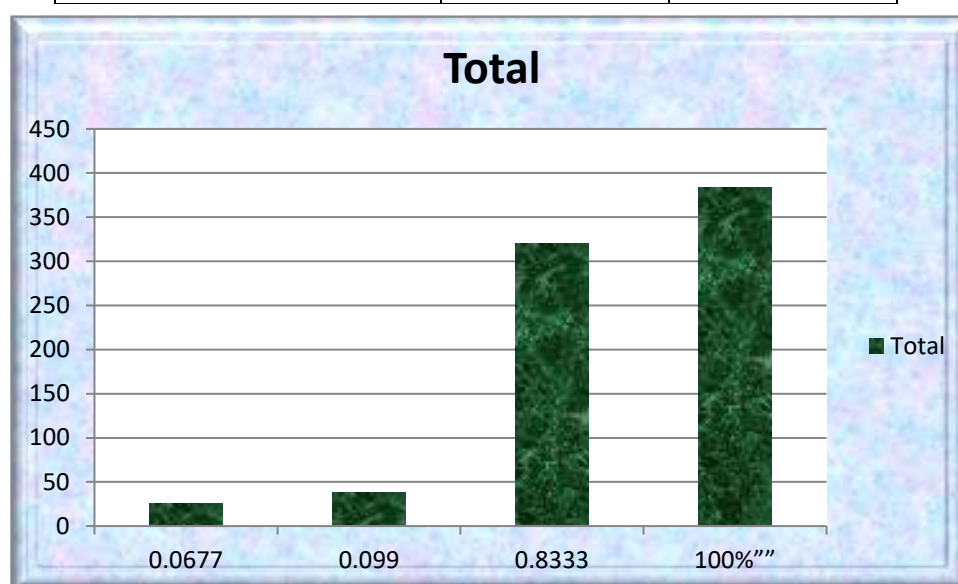
Research instruments included a demographic questionnaire, an academic motivation test, and a psychological well-being scale (PWBS-18)". Statistics on a single page the demographics page included questions on age, gender, education level, and marital status, among others. The study's researchers built and analysed the fictitious website.

Analyzing the Demographics of the Respondents

Table 4.1: Questionnaires Collected

Questionnaires	Frequency	Percentage %
Returned questionnaires	320	83.33%
Unreturned questionnaires	26	6.77%

Response Errors	38	9.90%
TOTAL	384	100%



From a total of 384 questionnaires which dealt with the Effect of Social Media on Osmania University students at random: The Case of Osmania University students at random, 320 (83.33%) were returned, 26 (6.77%) unreturned and the remainder 38 (9.9%) had answer mistakes. This happened because some of the surveys were incomplete, while others were either not answered or answered incorrectly.

Dr Naveen Prasadula developed “the Academic Vitality Scale, from which Dehqanizadeh derived the Academic Vitality Questionnaire”. After numerous revisions of the items were applied, the questionnaire settled on its current form with 10 questions. In a pilot research with 186 high school students chosen by cluster randomization, the aforementioned questions were put through further testing to establish their psychometric properties. The findings showed that when item 8 were removed from the set, “the Cronbach's alpha was 0.80 and the retest coefficient was 0.73. The correlation between each element and the final score also ranged widely, from 0.51 to 0.68”. In light of these results, it would seem that the items were both reliable and consistent.

Each and every one of the goods was dependable and constant.

Riffe's scale for measuring psychological health “consisted of 84 questions, each on a Likert scale ranging from 1 to 7. (Ranging from "strongly disagree" to "strongly agree "). Meaning in life, positive connections, personal growth, self-acceptance, independence, and perceived control over one's environment were the six domains examined in this self-report questionnaire on mental health. The estimated internal consistency coefficients for the different sections of this questionnaire fall in a range from 0.83 to 0.91. Cronbach's alpha for the derived psychological well-being measure was 0.81, according to research by Mohammadpour and Joshanloo (2014) .Similar results were obtained on the subscales evaluating self-compliance, environmental mastery, personal growth and development, connection with others, life's purpose, and self-acceptance (scores of 0.60, 0.64, 0.58, 0.65, and 0.61, respectively). Kafka and Kozma (2002) performed a study to test the reliability of the items on Riffe's scale of psychological well-being. The findings demonstrated a robust relationship between this indicator and the subjective well-being (SWB) and contentment with life (SWL) scales (SWLS). When using the Cronbach's alpha formula to the study's index of psychological well-being, the coefficient of reliability comes out to be 0.81, suggesting high levels of internal consistency. In addition, on the test's subscales evaluating self-compliance, environmental mastery, personal growth and development, relationships with others, the purpose in life, and self-acceptance, the participants earned scores of 0.60, 0.64, 0.54, 0.58, 0.65, and 0.61, respectively.SPSS software was used to analyse the data. Mean, standard deviation, frequency, and frequency percentage indices were computed for descriptive statistics, while univariate and multivariate analysis of covariance models were used for inferential statistics”.

Gender of the Respondents

Table 4.2: Gender of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Female	193	60.3	60.3	60.3
Valid Male	127	39.7	39.7	100.0
Total	320	100.0	100.0	

As can be seen from the descriptive statistics shown in table 4.2, 193 (60.3%) of respondents are female, while only 127 (39.7%) are male. These results indicate that women at Osmania University are more likely to study than men.

Findings of the research the writers are grateful to the respected administration of Tehran's Osmania University for their help. The authors would also want to express their gratitude to everyone who took part in the research.

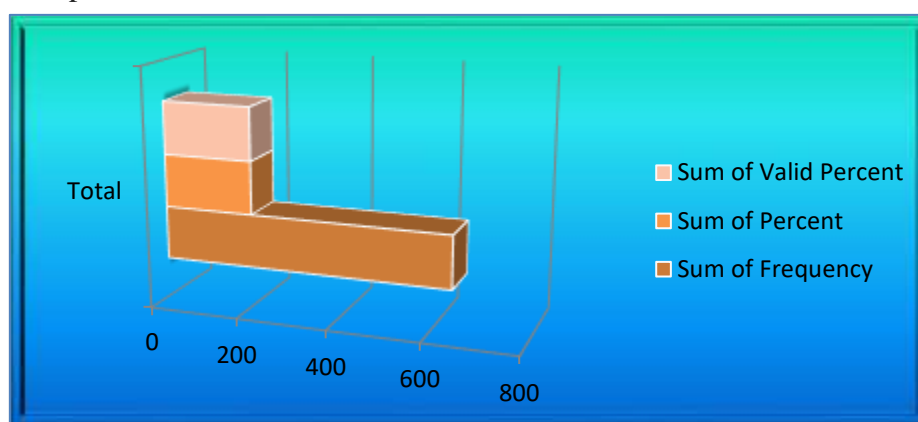


Table 3 Comparison of the two groups' pre- and post-test results on measures of academic and mental health, with descriptive statistics

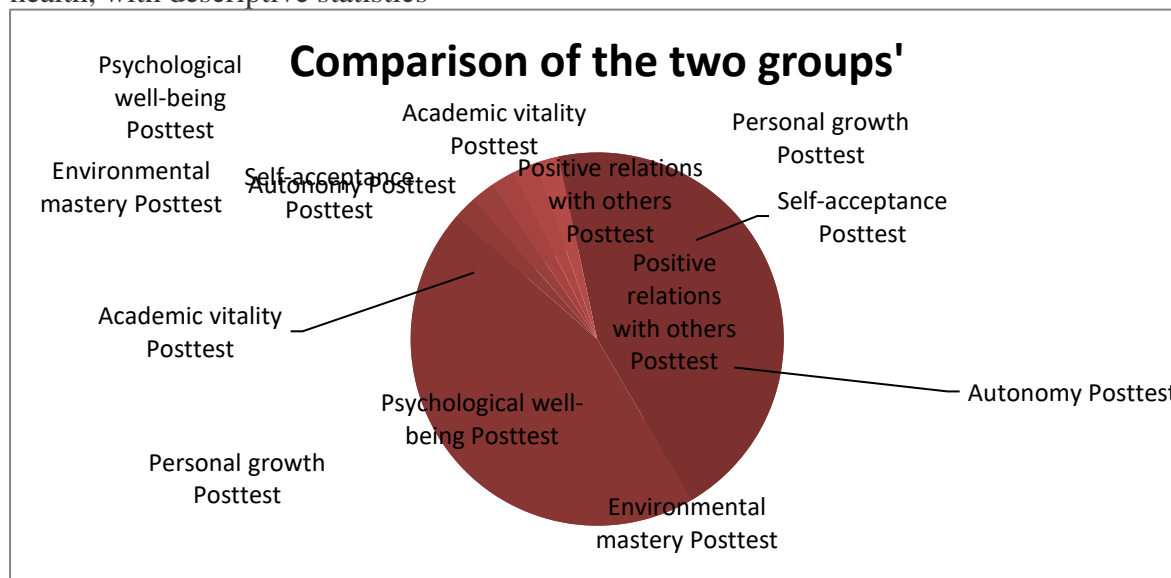


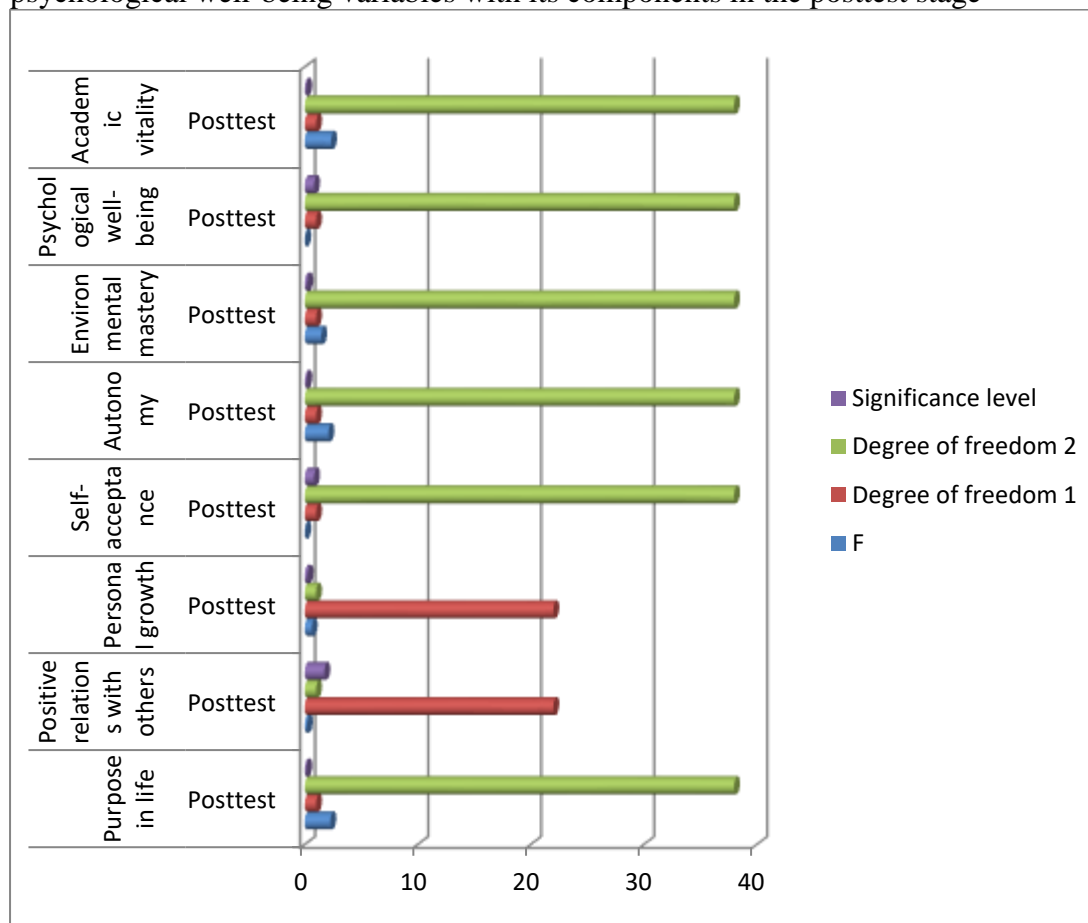
Table 4 shows that the null hypothesis that there is no difference between the two groups in the variances of academic vitality and psychological well-being is supported by the data. This result indicated there was no statistically significant difference between the two demographic groups with regard to academic vigour and psychological well-being. The study hypothesis data allowed for a covariance analysis since the Levene assumption was met.

Table 4 :Age of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
11 to 20 years	204	63.8	63.8	63.8
21 to 30 years	87	27.2	27.2	90.9
Valid 31 to 40 years	6	1.9	1.9	92.8
Over 51 years	23	7.2	7.2	100.0
Total	320	100.0	100.0	

According to the breakdown of ages provided by the respondents, 204 (63.80%) are between the ages of 21 and 30, 87 (27.20%) are between the ages of 31 and 40, 6 (1.9%) are between the ages of 41 and 50, and the remaining 23 (7.2%) are beyond the age of 51. This demonstrates that the bulk of the responders are matured enough to offer the information necessary for the sake of study. It also suggests that young people are the primary demographic frequenting the stores.

“Results of Levene test for the examination of the consistency of variances of academic vitality and psychological well-being variables with its components in the posttest stage



As there was a statistically significant difference between the two groups and at least one dependent variable, as shown in Table 5 (p 0.001). (Academic vitality and psychological well-being with its components). Additionally, the eta square indicated that 0.89 percent of the observed variations across subjects might be attributed to the impact of the intervention technique (stress management skills training)”. However, because the statistical power was more than 0.80 (at 0.95) the sample size was enough for the study. Listed below are the findings about differences that are statistically significant across all dependent variables.

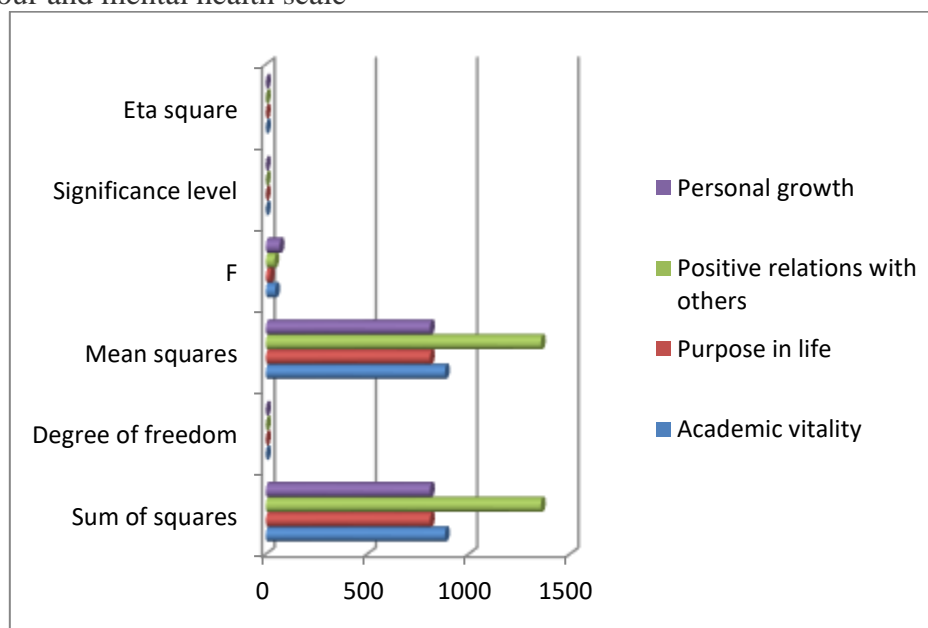
Table 5

Qualifications of the Respondents' Academic Background
 Education Level of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
High school and below	5	1.6	1.6	1.6
Technical/vocational certificate	29	9.1	9.1	10.6
Valid Bachelor's degree	257	80.3	80.3	90.9
Master's degree	29	9.1	9.1	100.0
Total	320	100.0	100.0	

Five (1.6% of respondents) are high school students, 29 (9.1%) have a technical/vocational certificate, 257 (80%.30%) have a Bachelor's degree, and 29 (9.1%) have a Master's degree, as shown in the table above. Therefore, it's safe to assume that most people in the samples have at least a bachelor's degree. In addition, Table 4.5 shows that 24 (7.4%) of the respondents are currently enrolled in school, 118 (36.9%) are either self-employed or run their own businesses, 137 (42.8%), are working professionals in a variety of fields, 23 (7.2%) are in retirement, and the remaining 18 (5.6%) are not currently employed. Respondents are now jobless. Consequently, it's safe to assume that the vast majority of respondents in this survey are working adults.

“Findings from a multivariate examination of correlation between post- and pre-test scores on the academic vigour and mental health scale



As shown in Table 6, the hypothesis that there is a difference between the two groups with respect to academic vitality and psychological well-being and its components was validated at the p 0.001 level of significance. Scores on measures of academic vitality, purpose in life, positive relationships, personal growth, self-acceptance, autonomy, environmental mastery, and psychological well-being were found to shift by 0.54 percentage points, 0.25 percentage points, 0.64 percentage points, 0.60 percentage points, 0.45 percentage points, and 0.81 percentage points, respectively, as a result of the independent variable (stress management skills training). Hence, it might be concluded that training in stress management skills improved academic vitality and psychological well-being in all of their component parts.

“Regression Coefficient Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.798	.100		17.979	.000
Website Quality	.157	.035	.225	4.462	.000
Trust	.127	.048	.147	2.639	.009
Situational Variable	.154	.041	.210	3.742	.000
Variety Seeking	.183	.033	.290	5.591	.000

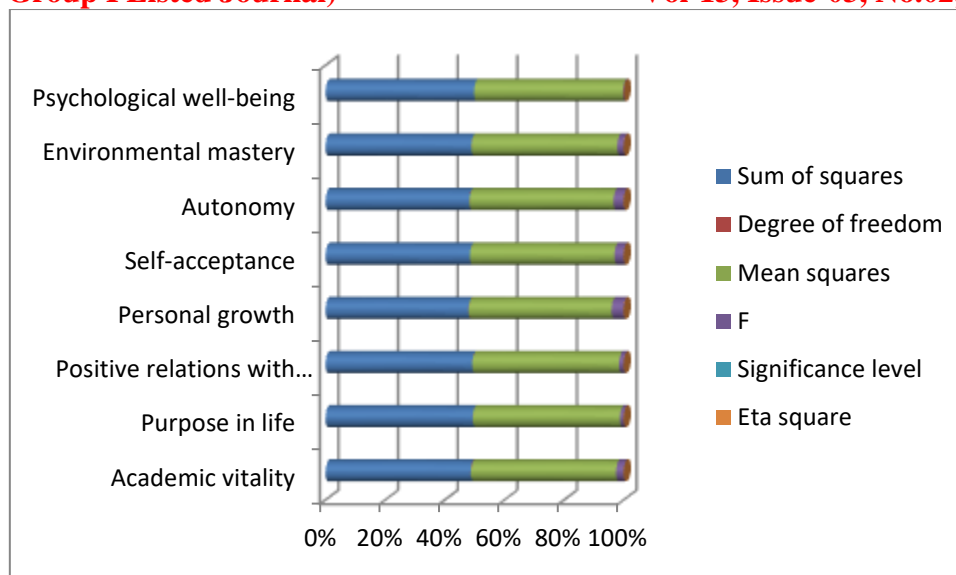
a. Dependent Variable: Students' Academic Performance and Mental Health conducted in Osmania University

Whether or whether an independent variable is positively or negatively correlated with the dependent variable may be determined by examining the regression coefficient. For a given change in the independent variable, the coefficient value represents the percentage change in the dependent variable's mean that would occur if all other variables were held constant.

Coefficient for Website Quality is 0.157, as seen in the table. When controlling for other factors, this means that an increase of one unit in Website Quality is associated with a corresponding rise of 0.157 units in Student Academic Performance and Mental Health at Osmania University. Considering that the p-value for the Website Quality coefficient is 0.000, which is less than 0.05, we can conclude that it is statistically significant. For these reasons, the findings of the study on the effect of website quality on the academic performance and mental health of Osmania University students might be accepted.”

Table 6 :Multivariate analysis of covariance findings on the effect of stress management training on posttest levels and components of psychological well-being

Index	Sum of squares	Degree of freedom	Mean squares	F	Significance level	Eta square
Academic vitality	883.601	1	883.601	45.472	0.001	0.545
Purpose in life	810.003	1	810.003	19.585	0.001	0.341
Positive relations with others	1357.225	1	1357.23	42.097	0.001	0.526
Personal growth	810.001	1	810.001	67.574	0.001	0.64
Self-acceptance	1113.025	1	1113.03	70.287	0.001	0.649
Autonomy	792.1	1	792.1	55.761	0.001	0.595
Environmental mastery	1188.1	1	1188.1	51.363	0.001	0.575
Psychological well-being	36007.001	1	36007	212.607	0.001	0.848



Discussion and conclusions

The purpose of this study was to determine whether or not teaching students how to deal with stress would have a positive effect on their academic performance and mental health, and the results of both the univariate and multivariate analysis of covariance indicated that teaching stress management skills did have such an effect. The results showed that training in stress management skills significantly improved students' performance in the classroom. Habibi M. (2012), A. Pakdaman, K. Ganji, M. Ahmadzadeh, and Z. Shirbim and M. Sudani and A. Shafi-Abadi (2008) all found similar results". This was also due to the training, which helped pupils develop new abilities, gain insight into their own strengths and shortcomings, and make strides toward being more self-reliant. This might lead to improved facilities for teaching and learning for the pupils. Dr. Naveen Prasadula (2021) offers an explanation for their similar findings, arguing that teaching people practical skills like stress management is a great way to improve the nation's mental health and protect its citizens from harm. Indeed, these teachings safeguarded the society's health and mental hygiene, preventing the spread of sickness, disability, and social unrest. This led to an uptick in people's feelings of safety and togetherness in the community, which in turn boosted their optimism, energy, and well-being. The results indicated that teaching people how to deal with stressful situations had a major effect on their mental health. Similar explanations were provided for their results, in which they concluded that dealing with many pressures necessitated the acquisition of new coping mechanisms. That is to say, people need to know how to handle pressure and use appropriate coping strategies in order to better deal with the demands of their daily lives and the stresses they inevitably encounter. Therefore, stress management intervention resulted in the development of positive self-evaluations and improved performance in the predictable environment. It sparked people's curiosity and sparked their drive, all while boosting their own sense of worth. In turn, this enhanced people's emotional health. "Qanbari N, Habibi M, Shams-Aldini S (2013) explained their identical conclusion by saying that stress and anxiety might be decreased with the use of numerous ways to manage stress, such as relaxation and muscle relaxation. Individuals improved their mental health by recognising the physical signs of stress and learning to relax in ways that are at odds with that state of affairs. Similarly, Chubforushzadeh A, Kalantari M, Molavi H (2009) explained their conclusion by saying that stress management therapies alter the patient's outlook on life in a number of ways". Therefore, it may be possible to reduce stress and improve mental health by helping people refine their self-assessments and coping strategies and by giving them opportunities to put their newly acquired knowledge into practise in realistic settings.

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