A Study on Progress of Students in Nizwa College of Technology with Special Emphasis on Stress Related Issues

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Abstract

In today's competitive world, challenges faced by students from different sources contribute to stress and effects the consistency in their performance. So the researcher felt a need to study the reasons behind their underperformance. An exploratory study, conducted to know the latent intentions of the respondents towards learning process in Nizwa College of Technology, across three departments— Engineering, Business studies and Information Technology. Out of total population of students studying in three departments of Nizwa College of Technology, a sample of 102 students were taken for research which comprised a mix of Male and Female Students. The sampling method adopted for the study is convenient sampling method, wherein the students were contacted on a random basis by administering a structured online questionnaire using google forms. Data is collected from primary and secondary sources. The supportive literature review and the conceptual framework were taken from secondary sources. Data was analyzed with the help of T-test and Factor analysis. It is found that most of the students get worried and tired when they are in stress. To reduce the stress levels almost 33% of students believe that talking to their friends and taking rest reduces stress. It revealed that various factors that contribute to stress are economic, personal, college resources, learning methods, outcomes, teaching methods, recreational activities and infrastructural facilities. Hence, it is concluded that apart from academic issues there are many other things which are contributing towards stress among students. Many students are either worried or tired because of the pressure they face in their day to day activities. Stress related issues cannot be ignored in an academic environment, as this may lead to a negative impact on a student's life.

Keywords: challenges, intentions, learning process, performance, stress, teaching methods

1. Introduction

College life is one of the most memorable experience in a youngster's life. It is in college that the youth enjoys a lively environment, the company of friends and the various academic and co-curricular activities, which enriches, nurtures and prepares them for adulthood. College students are at a critical period where, they enter adulthood. They are expected to be the leaders in the society. Thus, they should enhance their stress management abilities so as to live a healthy life after entering the society as adults. Adolescence is a stage of human development that occurs between childhood and adulthood. Due to physical changes and mental development at this stage, students may experience incompatibility of their mental development with their physical changes or with the social environment and they suffer from problems arising from inadequate variations. These problems may further cause psychological troubles and even induce divergent behaviours. Adolescence is a perilous period of time where young people experience self-organization and role confusion. For them, stress mainly comes from academic tests, interpersonal relations, relationship problems, life changes and career consideration. Such stress may usually cause psychological, physical and behavioural problems. This study examines the various aspects that contributes to stress among college students.

2. Background of the Study

Today's students are more stressed than the past. In fact, in 2015 American College Health Association National College Health Assessment found that 85.6 percent of students had felt overwhelmed in the past year. The pressures of getting top grades, balancing extracurricular activities with studying, and spending time with family all add up. In addition, students manage another identity in the digital world. Social media platforms are one more thing to keep up with and are often common with stress-inducing comparisons, gossip and bullying. Significant life changes—such as a death in a family, moving to an unfamiliar location or a divorce—are likely

to cause high spikes in stress. 2016 study published in the International Journal of Clinical and Health Psychology shows daily stressors play just as significant a role in affecting overall mental health. When a student is stressed and preoccupied, it takes over their ability to focus during lectures or studying. Stress may even cause students to drop out of college or drop classes. As research shows, stress exhibited by instructors directly increases the stress levels of students while in the classroom. Stressors may pop up any moment to disrupt learning and concentration. Nizwa College of technology comprising of various Departments like Engineering, Information Technology and Business is imparting a systematic education to the students for their personal and professional development which is helpful for their future. Due to the competition and challenges faced by students from different sources made those not equally competent to accept the education offered in Nizwa college of Technology. It is noticed that there is a variation in the students' performance from time to time. So the researcher felt a need to study the reasons behind their underperformance and provide valuable suggestions to improve the system of teaching learning process in NCT.

2.1 What is Stress?

Stress is the reaction of one's body and mind that causes a change in the balance. Stress is a common aspect of many different emotions like anxiety, frustration, anger, worry, fear, sadness and despair. A very clear physical aspect is involved in it. Some may experience such as a pain in the chest or in the bottom of the stomach or in the form of compressing their jaws. (MyersDG, 2005)

2.2 Definition of Stress

A state of mental or emotional strain or tension resulting from adverse or demanding circumstances. (Oxford dictionary). Stress is your body's way of responding to any kind of demand or threat. When you sense danger—whether it's real or imagined—the body's defenses kick into high gear in a rapid, automatic process known as the "fight-or-flight" reaction or the "stress response". The stress response is the body's way of shielding you. When working properly, it helps you stay attentive, energetic, and alert. In emergency situations, stress can save your life—giving you extra strength to defend yourself, for example spurring you to bang on the brakes to avoid an accident.

2.3 Different Forms of Stress

Stress can be of two forms: positive stress (Eustress) and negative stress (Distress). Eustress is the feeling of relief. Distress is an emotion that leads towards disease. This type of distress is generally caused by an event in one's life, for example, failure in exams, divorce, notification of debt, tax, and etc. Eustress is a positive stress set off by a positive event in one's life. Its examples may include winning a championship, planning or attending a wedding, wining a lottery, or receiving an unexpectedly good result in an exam. Eustress allows people to engage in the challenges of life.

2.4 Causes of Stress

Causes of stress are known as stressors. Being physical or emotional, internally or externally generated, the stressors are classified as:

1. Exogenous or external factors: they are those factors which originate from exterior and individual has no control over that. For example, the death of loved ones, etc.

2. Endogenous or internal factors include strong memories of previous unpleasant experiences, which make individuals highly sensitive to such instances. They anticipate the same unpleasant events, and their fear gives rise to feelings of inferiority, insufficiency and insecurity.

3. The combination of endogenous and exogenous factors also leads to the creation of stress. (Holahan & Moos, 2000)

4. System induced stress is another type of stress identified by psychologists; System refers to organizations like school, family, office and other such social structures, in which an individual functions. Life becomes tough if any of these structures are stress inducing. (Holahan, Charles, 1982)

This type of stress is highly relevant to under-developing societies in the context of changing demands in the family and workplace. One group of society which is a victim of system induced stress is the student community. The natural instincts of children to be playful and fun loving come in severe conflict with the pressure imposed by the academic overload and expectations. The academic burden in school and unrealistic parental demand and social expectations are imposing severe stress on students especially among young students Most of the high school students in Iran concentrate only on academics and do not give much importance to other activities. Even the parents are convinced that these are the crucial years where the children need to concentrate only on

academics in order to perform well in the race of entrance examinations at the end of senior intermediate. Thus, the students are left with no choice except participating in this race, especially those students who opt for science and mathematics branches at high school levels. Other branches such as art, commerce and literature are considered to be low grade by the staff, students, parents as well as the managements of educational establishments. (Ko,SM,Kua Eh,1999)

3. Review of Literature

Stress is the process by which an individual or a person react when opened to external or internal problems and challenges. "The organism processes numerous systems to coordinate such adaptive responses both at systematic and cellular levels "by this, stress has direct effect on the brain and the whole anatomy of the body as such failure to adapt to a stressful condition can result in brain malfunction, physiological problem and also many areas of psychological challenge's in the form of depression, nervousness, discomfort and burnout.

According to Wheeler (2007), stress is physics word which refers to the amount of force used on an object and it relates in real life as to how certain issues that carry force applied to human life. Examples financial difficulties, health issues, conflicts with friends, all carry force or pressure on person's body -mind and spirit. Some of the pressure or power originate from the environment but most often comes from within a person's head in the form of worry, anxiousness, repentance, discouragement and low confidence. Therefore, stress is basically force applied to a person and may result in a strain which is a result of an unmanaged stress i.e. when a person is not able to handle a task or problem encounters strain. To some people, the effect is minimal which means they are able to tolerate pressure whiles in others the effect is huge and have an adverse effect. Junru Yang & Lei Zhang. (2005) College students are at a special stage in life. Their mental development is in the process of maturity but still immature. Their interpersonal communications are complex, which produces mental stresses. In life, they mostly depend on family, plus most of them are the single child in one family, their self-care abilities are poor, which may produce mental stresses either. In addition, the college students who experienced unhappy family matters have more worries, depressions, and physical diseases than people who did not. Meanwhile, stresses from family conditions may be from parents' expectations for children. Al-Busaidi, Z et al. (2011). A study was conducted to find out the incident of depressive symptoms among the university students in Oman. According to this study there were various factors which contributed towards depression. Factors such as moving away from your family home for the first time, losing the adult supervision and the traditional social support. Some students' might also have to deal with financial difficulties for first time in their lives. These changes were recognized as risk factors for evolving depression. Nakalema ,G., Ssenyonga, J,.(2013) This study examined academic stress, study habits and academic performance of undergraduates of Mbarara University of Science and Technology in Uganda using a cross-sectional survey research design. Findings showed that daily academic disturbances were found to be the most stressful while personal problems were reported as the least stressful. First year students experienced more academic stress from financial hardships academic burden/time and social expectations than the ongoing students. Motivation was the most used study among the respondent, while studying a chapter was the least common study habit among the students. Faculty of Development Studies students had better study practices than other faculties/institute based on grade performance. Elzubeir M A, (2010) Stress, unhappiness and nervousness are common among Arab medical students as compared to students elsewhere. Little is known about the contribution of different curricula methods to perceived stress and what coping strategies institutes and students apply to help alleviate stress. Large, prospective, multicentre, multi-method studies are needed to identify personal and program features that influence stress, depression, anxiety and coping strategies among Arab students. Carver CS (1997) Managing strategies refer to the specific efforts, both behavioural and psychological, that people employ to master, reduce tolerate or lessen stressful events. 'Active coping' means taking action or exercising efforts to remove or avoid the stressor, 'positive reframing' means making the best of the situation by growing from it or seeing it in a more positive light, 'denial' is an attempt to reject the reality of the stressful event while 'behavioral disengagement' means giving up or retreating efforts from the attempt to attain the goal with which the stressor is interfering. Elizabeth, (2003) a healthy lifestyle is an essential mate to any stress-reduction program. Stress occurs when pressure exceeds beyond its perceived ability to handle. Stress is the body's reaction to a change that requires a physical, mental or emotional modification or response. Today, stress levels among children have been going up hazardously high due to the pressure of their academic and large amount of syllabus content in a limited span of time and too much expectation from parents. High level of stress is likely to eventually affect the health of the students. Strong et al., (2008) Being able to manage responsibilities, problems, or difficulties in a quiet and thoughtful manner is one way of handling. Students are being pressured frequently by a variety of factors which cause them to have stress in one or more ways.

3.1 Theoretical framework
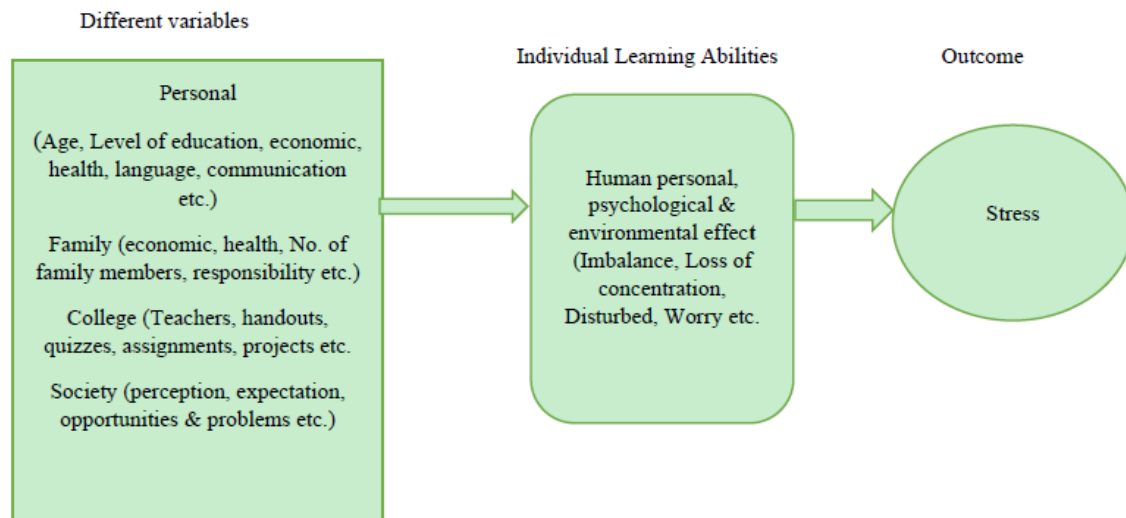
4. Research Approach

4.1 Objectives of the Study

1. To study the prevailing education system in Nizwa College of Technology.
2. To understand the problems faced by students in the teaching learning process in NCT.
3. To identify the reasons for under performance of students in NCT.
4. To suggest measures to improve the performance of students in NCT.

4.2 Scope of the Study

The scope of the study is confined to Nizwa College of technology covering various departments like Engineering, Information technology and Business and it is restricted to the students problems faced during learning process and the respondents are limited to the students of NCT. The research has been conducted between January-March 2018.

4.3 Methodology

It is an exploratory study, conducted to know the latent intentions of the respondents towards learning process in NCT. The area selected for this study is Nizwa College of technology across three departments— Engineering, Business studies and IT. Out of a total population (3462) of students studying in three departments of NCT, a sample of 102 students were taken for our research which comprised a mix of Male and Female Students. The sampling method adopted for the study is convenient sampling method, wherein the students were contacted on a random basis by administering a structured online questionnaire by using google forms. Data is collected from primary and secondary sources. The supportive literature review and the conceptual framework are taken from secondary sources. Primary data is collected with the help of a structured online questionnaire. The instrument consists of closed ended questions which helps the respondents to give proper responses. A list of 24 questions are included that addresses the objectives of the study. Data is analyzed with the help of T-test and Factor analysis.

4.4 Significance of Study

This study is essential to find out the various components contributing to stress among students and thereby decreasing their performance. It is required by the college to analyze the causes of declining grades of students in their academics. The outcome of the study is important for Ministry, college, teachers, students, parents, society and industry.

5. Analysis

The results in succeeding tables demonstrated significant differences on causes of stress when they were grouped according to their gender. The T-Test of independent means was used for two groups' variables

Table 1. Gender- Causes of stress

Sl.No	Causes of Stress	Gender	N	Mean	T	Sig. (2-tailed)
1	Not having enough money to run monthly expenses.	Male	43	2.23	-2.061	0.042
		Female	59	2.64	-2.06	0.042
2	Workload given by the teachers (Assignments, HW, Quizzes etc.)	Male	43	2.77	-1.064	0.29
		Female	59	2.95	-1.058	0.293
3	Competition among friends and class mates in the college.	Male	43	2.28	-0.983	0.328
		Female	59	2.44	-0.963	0.338
4	Family commitments hinders towards achieving academic success.	Male	43	2.42	-1.576	0.118
		Female	59	2.68	-1.545	0.126
5	Health conditions will interrupt the academic performance.	Male	43	2.12	-3.083	0.003
		Female	59	2.66	-2.964	0.004
6	Spending more time playing sports and games.	Male	43	2.6	0.899	0.371
		Female	59	2.42	0.893	0.374
7	Examination results declared.	Male	43	2.74	-0.468	0.641
		Female	59	2.83	-0.46	0.647
8	Not enough time to manage personal, family and academic work.	Male	43	2.72	-1.455	0.149
		Female	59	2.97	-1.436	0.155
9	Not being happy with the existing infrastructural facilities (Handouts, transport, library etc.)	Male	43	2.81	1.257	0.212
		Female	59	2.59	1.196	0.236
10	Overall your level of stress at present	Male	43	2.6	-1.04	0.301
		Female	59	2.78	-1.009	0.316

The analysis of findings in the above table no: 1 using T-Test of independent means illustrated that 'significant differences' existed when the respondents are grouped by 'gender' regarding the causes of stress. This was reflected as results. Not having enough money to run monthly expenses (0.042) and Health conditions will interrupt the academic performance (0.03) had computed values (t) with significant levels (sig.), which are lesser than p value at 0.05.

5.1 Perceptions of Respondents towards Teaching Learning in NCT

Factor analysis is performed for the data obtained from the questions asked to the respondents related to the teaching learning in NCT. Principle component analysis method and varimax rotation with Kaiser Normalization is done.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.721
Bartlett's Test of Sphericity	Approx. Chi-Square	731.725
	df	276
	Sig.	.000

From the above table no: 2 it is evident that Kaiser –Meyer-olkin and Bartletts test sampling adequacy is 0.721(> 0.5) which is acceptable for the present study.

The component matrix found that there are 7 factors extracted from original 24 variables. Table 3 examines the total variance explained by the factor analysis and gives an indication about the number of useful factors. The table 3 has three parts. First part titled initial eigen values gives the variance explained by all the possible factors. Second part extraction sums of squared loading gives the information for factors with eigen values greater than one The last part titled, rotated sum of squares gives the information for extracted factors after rotation. The result indicates seven factors with eigen values greater than one suggesting a seven-factor solution. The factor 1 explains 11.52 percent of variance (under varimax rotation) out of total variance of 60.89 percent of 7 factors.

Table 3. Total variance of the respondents' perceptions towards teaching learning in NCT (Total Variance Explained)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumula tive %	Total	% of Variance	Cumulati ve %	Total	% of Variance	Cumula tive %
1	5.588	23.283	23.283	5.588	23.283	23.283	2.767	11.529	11.529
2	2.112	8.8	32.082	2.112	8.8	32.082	2.696	11.232	22.762
3	1.556	6.485	38.567	1.556	6.485	38.567	2.383	9.93	32.692
4	1.492	6.218	44.785	1.492	6.218	44.785	1.985	8.272	40.964
5	1.385	5.769	50.555	1.385	5.769	50.555	1.8	7.499	48.463
6	1.254	5.225	55.78	1.254	5.225	55.78	1.531	6.378	54.84
7	1.227	5.113	60.892	1.227	5.113	60.892	1.452	6.052	60.892
8	0.987	4.112	65.005						
9	0.954	3.977	68.982						
10	0.903	3.763	72.744						
11	0.803	3.344	76.088						
12	0.718	2.99	79.078						
13	0.684	2.849	81.927						
14	0.638	2.658	84.585						
15	0.582	2.426	87.011						
16	0.507	2.111	89.121						
17	0.497	2.069	91.191						
18	0.386	1.61	92.8						

Extraction Method: Principal Component Analysis.

Results of factor analysis for the questions related to the respondents perceptions towards teaching learning in NCT.

Each factor is analyzed by identifying those items that had high factor loading and 0.6 is used as cut-off for assigning variable to the factors.

Factor-1 Economic and personal

1. Not having enough money to run monthly expenses.
2. Not having enough time to manage personal, family and academic work.
3. Not being happy with the existing infrastructural facilities (Handouts, transport, library etc.)
4. Overall your level of stress at present

Factor-2 College resources

1. The college library has enough resources to help students.
2. The number of classes in a week are acceptable by the students.

Factor-3 Learning methods and outcome

1. More presentations and Practical activities helps the students to increase their performance.
2. Duration of class time is acceptable by the students.
3. Examination results declared.

Factor-4 Personal

1. Family commitments hinders towards achieving academic success.
2. Health conditions will interrupt the academic performance.

Factor-5 Teaching methods

1. Class activities and discussions help to understand the concepts better.
2. Language used by teachers is understandable by the students.

Factor-6 Recreational activities

1. Spending more time playing sports and games.

Factor-7 Infrastructural facilities

1. The college Wi-Fi assists students towards better performance.
2. The college cafeteria is helping the students to relax in their busy schedule.

5.2 Descriptive statistics of the of the respondents' perceptions towards teaching

The following table 4 shows that the mean, standard deviation of the variables asked to the respondents towards their perceptions towards teaching learning in NCT.

Table 4. Descriptive statistics of the of the respondents' perceptions towards teaching learning in NCT
(N=102) (SA-1 A-2 DA-3 SDA-4)

Sl.no	Components	Mean	Std. Deviation
1	The college provides appropriate timetables to the students	2.51	.941
2	The college gives enough information about the level of study	2.48	.829
3	The college provides acceptable number of courses per level	2.31	.783
4	The college Wi-Fi assists students towards better performance.	**3.08**	.972
5	The college library has enough resources to help students	2.63	.889
6	The college cafeteria is helping the students to relax in busy schedule.	**2.98**	.912
7	The number of classes in a week are acceptable by the students	2.32	.977
8	The course contents are easily understandable by students.	2.68	.786
9	The handouts are in easy and simple language.	2.47	.875
10	Moodle is helping students to understand the topic better.	2.62	.868
11	Class activities and discussions help to understand the concepts better.	2.21	.788
12	More presentations and Practical activities helps the students to increase their performance.	2.35	.981
13	Language used by teachers is understandable by the students.	2.33	.812
14	Duration of class time is acceptable by the students.	2.62	.845
15	Not having enough money to run monthly expenses.	2.47	1.012
16	Workload given by the teachers (Assignments, HW, Quizzes etc.)	**2.87**	.852
17	Competition among friends and class mates in the college.	2.37	.820
18	Family commitments hinders towards achieving academic success.	2.57	.827
19	Health conditions will interrupt the academic performance.	2.43	.917
20	Spending more time playing sports and games.	2.50	1.002
21	Examination results declared.	2.79	.916
22	Not enough time to manage personal, family and academic work.	2.86	.845
23	Not being happy with the existing infrastructural facilities (Handouts, transport, library etc.)	2.69	.879
24	Overall your level of stress at present	2.71	.839

From the above Table 4 it is revealed that most of the respondents accepts that, the college Wi-Fi is not assisting students towards better performance (mean = 3.08) with S.D. of 0.972, followed by the college cafeteria is not helping the students to relax in busy schedule (mean = 2.98) with S.D. of 0.912 and the workload given by the teachers (Assignments, HW, Quizzes etc.) are not acceptable with a (Mean = 2.87) with S.D. of 0.852.

6. Findings, Conclusion & Suggestions

It is found that most of the students get worried and tired when they are in stress. To reduce the stress levels almost 33% of students believe that talking to their friends and taking rest reduces stress. However, the students have a disagreement towards the course contents which is not easy for them to understand and technology (Moodle) is also not helping them enough in understanding the topics. The study also indicated that students want to have more class activities, presentations and discussions to improve their performance. Stress management is a very important aspect of a student's life. If students are not able to resolve their stress related issues in initial stages, then it will have a great impact on their performance. This research helped us to find out the various factors of stress like Economic and personal, college resources, leaning methods and outcomes, teaching methods, recreational activities and infrastructural facilities. Hence, it is concluded that apart from academic issues there are many other things which are contributing as a stress factor among students. Many students are either worried or tired because of the pressure they face in their day to day activities. Stress related issues cannot be ignored in an academic environment, as this may lead to have a negative impact on a student's life. Though the college is undertaking enough efforts to provide a better education still they can improve technology usage and should focus more on library resources. The teaching and learning process should be made more student centric. Students' involvement in the class activities and discussions should be encouraged. More focus can be given on improving the language gap among the teachers and students. Teaching them time management will reduce stress. Interactions with parents/advisors can help in this regard. Motivate the students

to involve in practical activities by linking them to their performance, which will enhance their skills and abilities for their personal and professional growth.

7. Scope for Further Research

This research can be further extended to all the colleges of technology for getting better results and it can also consider various other components like personal, family, social, technological etc. Further study can also be extended to identify the dropouts from various technical colleges and explore the reasons for improving the situation in Oman.

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