

An assessment of academic stress and its manifestations among University Teachers in Digital Era

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Abstract

Teachers stress has been well known across the globe. With the advent of the digital era, the class rooms are packed with latest gadgets and the students are exposed to innumerable electronic media, hence the role of the teacher is becoming more challenging. The fundamental purpose of this study is to highlight the major factors that affect the stress levels of the teachers and to discover the most widespread manifestations of stress among university teachers with reference to Gastrointestinal Manifestations, Cardiovascular Manifestations, Fatigues Manifestations, Behavior Manifestations, Emotional Manifestations and Psychosocial Manifestations. Convenient Sampling was used to collect data from 183 faculties of various universities across Gujarat using Teacher's Stress Inventory (TSI) as the base. Factor Analysis was performed using SPSS to derive the most important manifestations affecting the teachers. Findings of the research showed that the determinants of stress among the teachers are numerous and wide-ranging in the digital era and disturbance in the heart rates, increasing blood pressure, shallow breath and stomach problems manifests the most among the teachers. This research will help the teachers to understand the problems arising out of stress by taking effective measures well in advance before the problems take any ferocious form.

Keywords: Stress, Stressors, Manifestations, Educational Institutes, University Teachers, Digitalization

Introduction:

Digital technologies have reached a degree of development that allows their use across a wide range of industries and service industry is no exception. But there are many aspects of digitally transformed work that should be considered while studying the different areas of service industry. Education sector is one such area where digitization of work in the form of lectures, presentations, attendance, norms, pay packages and others is seen among teachers and students. One interesting development cited in the World Economic Forum's Digital Media and Society report is that digitization has enhanced the "flexibility for workers and employers, boosting productivity and enabling greater work-life integration". But the digitization of work is actually good for us or not is a matter of concern. The implications on family life and health leans more to the negative side.

Today very few would deny that teaching is a demanding profession and teachers have become acutely stressed. The causes of stress, however, are many and diverse. Apart from the difficulties of classroom teaching and lesson preparations there are various other factors that contribute to the stress among the teachers which causes terrible effects over the mind and body. Hence it is important to note that without proper training, resources and support, even the most helpful technologies can cause more stress for busy teachers.

According to (Bitner and Bitner, 2002) "using technology as a teaching and learning tool in the classroom does so to an even greater extent since it involves both changes in classroom procedures and the use of often unfamiliar technologies". Without sufficient training, access to valuable supplies, professional development, technical help and supportive leadership within the university, adding the time and effort to learn about and use a new technology is a difficult task for teachers with already heavy workloads.

The present study paints a fairly bleak picture of the stressful conditions they face, despite efforts on several fronts to address workload and performance pressures and the manifestations of stress affecting their health.

Objectives of study:

1. To discover the most widespread manifestations of stress among university teachers.
2. To establish the relationship between technological stress experienced by university teachers and its manifestations.

Research Methodology:

The current study is aimed at determining the manifestations of stress that are experienced by university teachers. The data was collected through a questionnaire from 183 respondents using convenience sampling method. Analysis of the data is done through factor analysis using SPSS. Past literatures were referred to know the impact of digitization and other factor that affect the health and well being of the faculties.

Literature Review:

Various research studies have been conducted on various aspects of job stress. The physical strain and mental distress is ever increasing with the changing environment and so is the stress. Education industry is no exception. (Parveen, 2013) conducted a research with the objective of exploring the faculty perception towards occupational stress in the college of business. The result showed that the male members with a mean score of 2.3750 are having too much pressure than female faculty with a mean score of 1.8657 related to Students' Interaction Subscale. It was also noted that age and marital status does not have any effect on male and female faculty members. In general, significant differences in perception of individual stress in terms of demographic variables were observed. (Bashir, S., Khan, S., Qureshi, M. I., Qureshi, M. E., & Khan, W, 2013) found that stress is experienced by the teachers but the situation is not alarming. Also it was observed that except gender, there exists a strong correlation between teacher's demographics like age, marital status, qualifications, teaching experience, income level etc and the prevalence of stress. (Devadoss, V., & Minnie, J. B, 2013) in their study identified that because of distant or unreachable supervisors, employees feel lot of pressure due to excessive work load, conflicting job demands, lack of individual autonomy, cooperation in decision making, poor performance from co-workers and long working time. Thus under such circumstances where supervisor is unreachable, employees cannot show their dissatisfaction nor complain about work load. Even job demands cannot be clarified proving it as the major stressor affecting work life harmony.

A study conducted by (Dlamini, C. S., Okeke, C. I., & Mammen, K. J. 2014) concluded that major sources of stress identified after their study was a result of contractual problems. Under contractual problems there is lack of power and influence, threat of job loss, performance related

incentives, poor pay, lack of accommodation, badly planned changes, temporal contracts and shortage of teachers. Other sources are nature of the work, poor pay and performance incentives. The study also revealed that age was the only demographic characteristic that had a positive relationship with work-related stress. (Gardner, S. 2010) in his study reviewed that Psychological distress is associated with anxiety, diminishing performance, lower productivity, suicidal ideation and depression and hence should be addresses immediately. Various stress reduction techniques suggested by researchers over the years include Cognitive Behavior Therapy (CBT), Mindfulness techniques and cognitive strategies, relaxation and visualization techniques, exercise & social support and others.

Singh, I (2014) in her research found that Role Conflict, Role Ambiguity, Intrinsic Impoverishment are the major factors causing stress while not much difference was found between male and female respondents except role overload and unprofitability being high among the female faculties. (Riaz, A., & Ramzan, M. 2013) examines in their research that lack of proper Time Management is the major stressor of stress among university teachers with mean score of 28.6649 followed by Work related stress with score of 21.6054. The most common manifestations are related with Emotional Manifestation followed by Gastrointestinal Manifestation and Fatigue Manifestation. According to (Teichmann, M., & Ilvest Jr, J. 2010) the sources of stress are divided into three categories namely individual sources of pressure as work-home imbalance, the sources of occupational stress in organization and work, and sources of pressure outside the university e.g. in academic community. Some of the new stressors identified from modern university are relationships with students, necessity to give delicate or negative feedback for students, excessive interaction and communication, academics' work-home imbalance, commercialization of science and education, and devaluation of education in society. (Razak, M. I. M., Yusof, N. M., Azidin, R. A., Latif, M. M. R. H. A., & Ismail 2014) in their study concluded that a positive correlation between workload, role conflict and interpersonal relationship with the work life balance was found. (Okeke, C. I. O., Adu, E. O., & Duku, M. D. N. 2014) stressed upon the fact that without identifying the teachers' demographic variables of race, age, marital status, gender, qualifications and location of school in a single study it would be difficult to conclude about the effect of stress on teachers and their methods of coping with the same. The literature review also shed light upon the causes of teacher stress, its effect on

teachers, teacher performance and learners and different strategies for coping with stress. (Arora, S. 2013) in his study found that, there exists a positive relationship between occupational stress and health of teacher educators and differences were found among teacher educators in terms of their gender and marital status. In order to reduce the level of stress, researchers suggested measures like providing congenial working environments, less work load, job securities, maximum provision of facilities, etc.

Analysis & Results:

TABLE: 1 Demographic profile of respondents

1	Age	Classification	Percent
		21-30 years	39.9
		31-40 years	26.8
		41-50 years	23
		51-60 years	10.4
		60 & above	0
		Total	100
2	Gender	Classification	Percent
		Male	67.2
		Female	32.8
		Total	100
3	Educational Qualification	Classification	Percent
		Post Graduate	66.1
		Doctorate	30.1
		Others	3.8
		Total	100
4	Work Experience	Classification	Percent
		0-5 years	31.7
		5-10 years	24
		10-15 years	10.9
		15 years & above	33.3
		Total	100

Source: From analysis of primary data

KMO and Bartlett's Test:

The KMO assesses the appropriateness of factor analysis and measures the sampling adequacy which should be greater than 0.7 for a satisfactory factor analysis to proceed. In the present

analysis, the measure of sample adequacy is 0.864 which is higher than the average of 0.7 and hence the available data is considered reliable for Factor Analysis.

TABLE: 2 KMO and Bartlett's Test for Manifestations of Stress

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.864
Bartlett's Test of Sphericity	Approx. Chi-Square	2.550E3
	Df	300
	Sig.	.000

The principal component analysis (PCA) was carried out to explore the underlying factors associated with 25 items related to the manifestations of stress among university teachers.

TABLE: 3 Total Variance Explained									
Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.807	35.226	35.226	8.807	35.226	35.226	3.529	14.117	14.117
2	3.097	12.389	47.615	3.097	12.389	47.615	3.114	12.457	26.573
3	1.478	5.913	53.529	1.478	5.913	53.529	3.091	12.366	38.939
4	1.221	4.885	58.414	1.221	4.885	58.414	3.056	12.223	51.162
5	1.134	4.535	62.949	1.134	4.535	62.949	2.820	11.282	62.444
6	1.055	4.221	67.170	1.055	4.221	67.170	1.182	4.726	67.170
<i>Extraction Method: Principal Component Analysis.</i>									

Six factors are extracted from the analysis along with their Eigen values, the percent of variance attributable to each factor, and the cumulative variance of the factor as shown above (Table 3). The first factor accounts for 35.226% of the variance, the second factor accounts for 12.389% of the variance, the third factor accounts for 5.913%, the fourth factor accounts for 4.885%, fifth

factor is 4.535% and the sixth factor accounts for 4.221%. The total percentage of the factors extracted is 67.170. All the remaining factors are not significant.

CHART: 1 SCREE PLOT

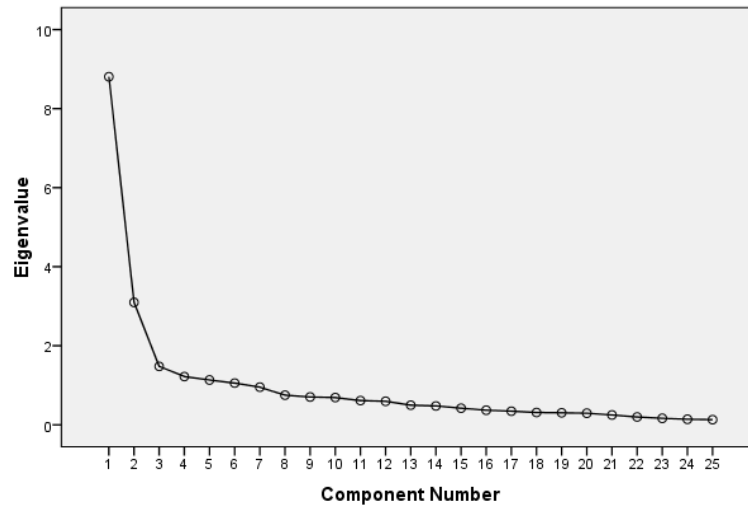


TABLE: 4 Rotated Component Matrix

	Component					
	1	2	3	4	5	6
Heart Pounding or Racing	.840		.158	.217	.105	
Increased Blood Pressure	.790		.243	.102		
Rapid or shallow breath	.746	.103	.128	.279	.128	
Stomach acid	.596	.133		.482	.231	.110
Feeling Vulnerable		.772	.180	.149		
Feeling Insecure		.735	.195	.119	.142	
Unable to Cope	.189	.727		.113		
Feeling Depressed	.152	.635	.235		.419	.136
Feeling Anxious		.623	.313		.413	.105
Withdrawing from responsibilities	.258	.222	.724	.168	.105	
Being Absent from work	.118	.207	.697	.302		
Struggling to maintain personals relations	.432	.200	.568			
Sleeping more than Usual	.108		.546	.133	.266	

Feeling Dissatisfied		.361	.538		.390	-.330
Procrastination		.320	.464	.114	.447	.287
Usage of Alcohol			.313	.775		.213
Stomach pain of extended duration	.415	.138		.730	.165	-.208
Stomach cramps	.391			.715	.213	-.180
Calling in sick	.239	.281	.318	.516		
Prescription drugs	.479		.138	.514	.171	.302
Physical Exhaustion	.144	.155		.188	.836	-.171
Physical Weakness	.311		.214	.205	.733	-.217
Becoming fatigued in short time		.198	.208		.698	.207
Usage of Over-the-counter drugs	.420	.116	.200	.412		.556
Low Morale	.127	.258	.511	.206	.307	-.512

The table above shows the loadings of the variables on the six factors extracted. The higher the absolute value of the loading, the more the factor contributes to the variable.

Following items are extracted:

Factor 1: First factor consist of four components labeled as “Hypertension” which have been categorized as Heart Pounding or Racing .840, Increased Blood Pressure .790, Rapid or shallow breath .746 and Stomach acid .596

Factor 2: Second factor encompasses five variables as follows: Feeling Vulnerable .772, Feeling Insecure .735, Unable to Cope .727, Feeling Depressed .635 and Feeling Anxious .623. It is labeled as “Agitation”

Factor 3: Third factor named as “Truancy” extracted the variables categorized as Withdrawing from responsibilities .724, Being Absent from work .697, struggling to maintain personals relations .568, Sleeping more than Usual .546 and Feeling Dissatisfied .538

Factor 4: Fourth factor consist of five components which have been categorized as “Physical Pain”. The factor loads for those variables are Usage of Alcohol .775, Stomach pain of extended duration .730, Stomach cramps .715, Calling in sick .516 and Prescription drugs .514

Factor 5: Commonly named as “Fatigue”, this factor extracted three variables as follows: Physical Exhaustion .836, Physical Weakness .733, and becoming fatigued in short time .698

Factor6: This factor consists of only one component which has been categorized as Usage of Over-the-counter drugs .556.

Conclusion:

An upshot of our study apparently indicates that university teachers are stressed. The major stressors of stress among university teachers are unfavorable personal factors and bureaucratic procedures. Surprisingly, technology is also playing its wider role in affecting the mind and well being of the teachers. Too much up gradation in teaching methodology and constantly relying on the computers for longer working works has started to affect the teachers and emotional manifestations, gastrointestinal manifestations, cardiovascular manifestations, fatigues manifestations, behavior manifestations and psychosocial manifestations are observed and experienced by them.

Findings of the research shows that the major and the most common symptoms of stress in teachers are increasing blood pressure, stomach problems, stomach cramps, physical exhaustion and weakness and unusual sleep among others. The manifestations of stress identified after the analysis includes Hypertension, Agitation, Truancy, Physical Pain and Fatigue as the common factors affecting the University teachers. It was also found that due to the increasing level of stress, teachers prefer to withdraw themselves from the responsibilities by remaining absent from the workplaces as they are unable to cope with the increasing demands of the digital era. They also have hard time balancing personal and work relations.

After understanding the symptoms of stress, the best coping strategy can be found out by researching further and since digitalization is playing its role in affecting the well being of the teachers, measures like stress management programs, physical activities, life-style modification programs, spiritual programs as well as guidance to handle the difficult technology in the most efficient way can be planned. However, in order to realize these benefits, faculties and administrators should work together to ensure that the adoption of digitalized media in education sector is supported by appropriate levels of training and access to resources.

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