

ANALYSIS OF OCCUPATIONAL STRESS OF UNIVERSITY FACULTY TO IMPROVE THE QUALITY OF THEIR WORK

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ABSTRACT

The purpose of this study is to examine the influence of occupational stress on cadre, nature of job and work experience of university teachers. Instrument was used in order to get the responses from university teachers in order to accomplish the above stated objectives. Inferential statistics, descriptive statistics, frequency tables, Post-hoc and ANOVA analyses were used to analyse the data. Study concluded that there is a significant difference in the means score of faculty members having different job cadres regarding their stress levels, when ANOVA was applied. While significant difference is found between lecturers, assistant professors, associate professors and professors. Application of Post-hoc inducted statistically significant difference between age group of 0-3 years and above 21 years of faculty members. In the last, the computation of ANOVA reveals no statistically significance difference among different types of teaching options, such as contract, permanent and visiting. Remedial measures are given at the end to manage the stress of university faculty.

Keywords: *occupational stress, cadre, nature of job, work experience.*

1) INTRODUCTION

The academic exposure towards new challenges has increased level of stress on faculty, which ultimately encourages the researchers of education management to study the relationship of work stress with different variables regarding university faculty members. Its significance lies in the fact that occupational stress closely linked with job satisfaction, employee commitment, employee turnover, organizational performance and productivity. Antoniou and Vlachakis, (2006) brought forward the most important sources of stress which are being faced by university teachers such as students' interaction issues, low level of interest and problematic attitude of graduates. They also found difference in

perceived stress levels in relation to their sources, like interpersonal interaction, academic burden and emotional fatigue have higher impact on female teachers. Professional mismatches cause burnout in younger faculty, while aged faculty feels stress due to less support from the concerned authorities.

According to Humphreys (1993), stress in teaching has sufficient attention of educational thinkers and researchers in present days and academic interest on this subject are expanding to various dimensions. The increased job-shift tendency in teaching profession is indicated by the trend that majority wants to leave this profession while there is decreasing trend towards joining this profession. Occupational stress is considered as root cause of this declining trend, which is one of the major causes of job stress. Dictionary gives definitions of occupational stress as “any stimulus that disturbs or interferes with the normal physiological equilibrium of an organism”. As Kinicki and Kreitner, (2001) pointed out that “stress is an adaptive response, mediated by individual characteristics and psychological processes that are consequences of any external action, situation, or event that places special physical or psychological demands upon a person.” Kyriacou and Sutcliffe (1978) reported a number of other stress definitions in reference to literature like, unhealthy sentiments observed by faculty due to work pressure “a procedure of behavioral, emotional, mental, and physical reactions caused by prolonged, increasing or new pressures which are significantly greater than coping resources”.

The newly developed workplace environment in universities like increase in female teachers and students, impacts of corporate sector and close relationship with stakeholders has made this profession very demanding, while control is rapidly moving towards low trend. Researchers have found inverse relationship as stress level is high, when demands are high and control is low, contrarily stress level is low, when demands are low and control is high. Due to recent dramatic developments in socio-economic life, the teaching profession has become highly demanding while the control (discipline) issues have become a major problem for many educational institutions. The combination of increased demands and control difficulties has moved teaching into an exceedingly stressful occupation. In this stressful environment, only the quality teacher can cope with the situation and can better help the institutions to attain educational objectives (Anonymous, 1997). Dua, (1994) in his study about

newly inducted faculty, has reported more job stress of staff below senior lecturer. The same trend prevails in support staff in which staff below senior technical officer level is highly stressful. Supporting staff has shown more stress due to job significance and clerical fatigues.

1.1) Statement of Problem

The impact of occupational stress is examined in various business and social sectors across the world. This relationship in the university settings of Pakistan is missing in the literature. The study is designed to investigate levels of work stress on cadre, nature of work, and work experience of university teachers.

1.2) Purposes of the Study

The purposes of this study are:

- i) To examine the influence of occupational stress on cadre of university teachers;
- ii) To scrutinize the influence of occupational stress on nature of job of university teachers; and
- iii) To inspect the levels of occupational stress on work experience of university teachers.

1.3) Significance of the Study

The research studies have contributed a lot in helping the helm of affairs in higher education to understand the impact of work stress. Many studies pointed out the intensity of stress on different levels of satisfaction across the university's discipline and demographical distributions. In this study, a step was undertaken in order to inspect the influence of stress on cadre, nature of job and work experience of university teachers. This step will provide initiative step for future research.

1.4) Organization of the Study

In this study, section 1 contains the introduction; section 2 entails the review of literature; Section 3 encompasses the hypothesis of the study; section 4 encloses the research methodology; section 5 includes the analyses & interpretations; section 6 comprises of conclusions; section 7

consists of limitations of the study; and section 8 surrounds the recommendations.

2) LITERATURE REVIEW

Occupational stress is one of the largely discussed areas by various educationists, researchers, psychiatrists, physicians and management gurus. They have highlighted different sources and symptoms of stress faced by various professionals. Blix et al. (1994) in their research on “occupational stress among university teachers” found out that two third of the university faculty reported that they perceived job stress at least half of the scheduled time. Faculty also expressed burnout, health problems caused by job stress, decreased work output, low capacity to manage the work stress and basis of job change. According to Blix et al., over workload is one of the most frequently quoted reasons for considering job change. Female teachers reported more tendencies to consider job change due to work stress. Research related activities described to be more stressful than either teaching or service.

Slicskovic and Sersic (2011): Conduct a research on work stress, they found that teachers in higher education are exposed to high level of occupational stress, middle positions and women in particular.

Kousar, Fatima and Bashir (2004) conducted a study of stress management strategies adopted by elementary school principals. The study identified that job-related stress has negative impact on the personality of elementary school heads. The study also revealed that female school administrators take more stress as compared to male heads. Male teachers having support of their staff members can easily manage stress as compare to female heads. The results also show that workload is the major cause of stress, and male heads can better manage their stress as compared to female heads.

Mondel, Shreshtha and Bhaila (2011): Conduct a study on Job Stress and Job Satisfaction of the teacher of the school and they found that teachers were party satisfied with responsibility for their worker relationship. They had with students and the work itself. But they need some more support and recognition from the institution or management. The participating school teachers were experiencing mild to moderate stress from their job overall.

Among the sources of teachers' stress identified by research, student discipline problems, student apathy, lack of time management, paper work, unclear administrative expectations and lack of cooperation among teachers have been mentioned frequently (Glasser, 1986, as cited in Duke, 1990). Arnold and Feldman (1986.p.461) explored number of potential sources of job stress experienced by different persons. Among the three major source of stress include: (1) role under load, role overload, role conflict, role ambiguity, and job characteristics; 2) to deal with people in other organizational and departments climate, amount of contact with others, and interpersonal relationships; 3) rate of life change, geographical mobility, career concerns, and personal factors.

Moorhead and griffin (1991, p.233) has approached in the similar way and categorize the consequences of stress in two major areas as; 1) effects on individuals 2) and organizations. In case of individuals, he reported; physiological, psychological and behavioral aspects as symptoms of stress. Robbins (1996) expressed what factors cause the most stress on the job. He mentioned these causes with reference to a report mentioned in a Wall Street Journal Survey. The results of the survey are as following:

Factors	Percentage Response
Not doing the kind of work, I want to	34
Coping with current job	30
Working to hard	28
Colleagues at work	21
A difficult boss	18

Robbins (1996) also reported that the multiple and conflicting demands causes the irrelevant placement, where a recruit experience less clarity of job role and indistinctness in duties, authority, and responsibilities, which leads to increased stress and dissatisfaction. Similarly, more stress and dissatisfaction are fabricated by the less control of people over the pace of work. The evidence advocate that job having identity and feedback, sovereignty, significance, low level of diversity etc. trim down job satisfaction and produces stress.

Dua (1994) stated that in terms of job cadres, junior faculty is suffering with higher stress because of less support facilitates available to them and support staff of the universities face high stress due to their extensive involvement in clerical activities. Misra and McKean, (2000), reporting a

study on interrelationship among academic stress, anxiety, time management, and leisure satisfaction among 249 university undergraduates concluded that developed aptitude in time management works as a major buffering effect on academic stress. They have also reported contemporary findings in the gender context that females, in spite of having better sense of time management exposed to greater academic stress and anxiety. Effective time management backed by leisure activities is suggested as good way to overcome the academic stress.

3) HYPOTHESIS MODELING

- H₀₁ There is no significant difference between occupational stresses of various categories of university teachers.
- H_{01.1} There is no significant difference between occupational stress of lecturers and assistant professors.
- H_{01.2} There is no significant difference between occupational stress of lecturers and associate professors.
- H_{01.3} There is no significant difference between occupational stress of lecturers and professors.
- H_{01.4} There is no significant difference between occupational stress of assistant professors and associate professors.
- H_{01.5} There is no significant difference between occupational stress of assistant professors and professors.
- H_{01.6} There is no significant difference between occupational stress of associate professors and professors.
- H₀₂ There is no significant difference among occupational stress of university teachers having different years of experiences.
- H_{02.1} There is no significant difference between occupational stress of university teachers having 0-3 and 4-12 years of experiences.
- H_{02.2} There is no significant difference between occupational stress of university teachers having 0-3 and 13-20 years of experiences.
- H_{02.3} There is no significant difference between occupational stress of 0-3 and 21 and above.
- H_{02.4} There is no significant difference between occupational stress of 4-12 and 13-20 years of experiences.
- H_{02.5} There is no significant difference between occupational stress of 4-12 and 21 and above.
- H_{02.6} There is no significant difference between occupational stress of 13-20 and 21 and above.

- H₀₃ There is no significant difference among occupational stress of university teachers having different nature of jobs.
- H_{03.1} There is no significant difference between occupational stress of permanent and contractual university teachers.
- H_{03.2} There is no significant difference between occupational stress of permanent and visiting university teachers.
- H_{03.3} There is no significant difference between occupational stress of contractual and visiting university teachers.

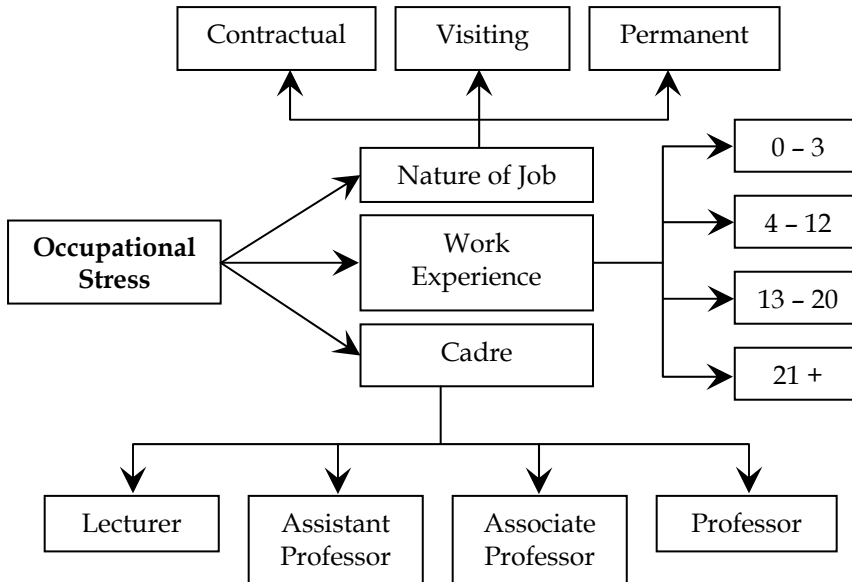


Figure 1: Hypothesis Modeling

4) RESEARCH METHODOLOGY

The purpose of this study was to explore the occupational stress level among university teachers based on cadre, nature of job and work experience of university teachers and type of departments of university. Professional life stress scale adapted by Fontana (1989) is used in order to evaluate the level of stress. The stress instrument includes 24 test items and constitutes an overall stress score. The test has standardized methods as people score 01-15 falls under “low stress”, 16-30 fall “under moderate stress”, and scorers between 31-45 are in “existent of high stress” and people scoring 45-60 are in “serious stress” category. Demographic variables were also included in instruments.

Five hundred (500) university teachers were included in the sample, including 150 of private and 350 of public universities. From the 500-

targeted sample, 310 responses of both universities private (78) and public (232) were achieved. In further securitizing process, five questionnaire were rejected due to carelessly filled up and finally 305 taken in data analysis, which constitute 60% of response rate. The sampling methodology was based on geographically scattered universities in the three cities of Punjab: Lahore, Multan and Bahawalpur. Therefore, stratified random sampling procedure was used to approach the sampled faculty private and public universities.

Inferential statistics, descriptive statistics, frequency tables, Post-hoc and ANOVA analyses were used to analyse the data. To explore the relationship, the Pearson product correlation coefficient is used. The Croan-bac Alpha score for the scale of occupational stress is 0.71, which is quite satisfactory in survey related research and sufficient for the reliability and validity of research instrument by using Statistical Package for Social Sciences (SPSS).

5) ANALYSES & INTERPRETATION

5.1) Demographic Characteristics of Respondents

A total 305 university teachers from both public and private sectors participated in the study. The composition of survey participants shows in table 01 regarding their cadres, experiences, and nature of jobs. The survey includes the participation of lecturers (53%, 163), assistant professor (26%, 81), associate professors (11%, 33) and professor (9%, 28). The respondents hold experiences of up to 03 years (35%, 106), 4-12 years (39%, 118), 13-20 years (14%, 44) and above 20 years (12%, 37). The selected sample is also composed of visiting faculty (3%, 10), faculty on contact (25%, 75) and permanent: the highest proportion (72%, 305).

5.2) Descriptive and Inferential Statistical Analysis of Occupational Stress across the Selected Demographical Variables:

Three levels of stress are examined across the cadre of university teachers in table 02. Among the 305 respondents, 63% lecturers, 70.4% assistant professors, 75.8% associate professors and 75% professors reported that occupational stress is not a big problem for them. While 34% lecturers, 27% assistant professors, 24% associate professors and 21% professors reported moderate occupational stress levels and vary few percentage of

university teachers among all the cadres reported that stress is a real problem for them.

Table 2: Frequency, Percentage and Stress Levels of Respondents across the Cadre of Job

Organization type	Stress is not big problem		Moderate stress level		Stress is a real problem		Total	
Lecturer	103	63%	56	34%	4	3%	163	53.40%
Assistant Professor	57	70.40%	22	27%	2	3%	81	26.60%
Associate Professor	25	75.80%	8	24%	0	0%	33	10.80%
Professor	21	75.00%	6	21%	1	4%	28	09.20%
Total	206	67.50%	92	30.20%	7	2.3%	305	100%

The One-way analysis of variance is applied to test the statistical difference among the cadre of respondents (Table 3). The hypothesis is formulated as no significant difference in the means score of faculty member having different job cadres regarding their stress levels and One Way ANOVA is used in table 09. H_{01} is rejected because ($P= 0.075 < 0.1$) which infers, that there is a significant difference between stress level of faculty members having different cadre of job at 90% confidence level.

Table 3-A further tests the hypothesis within cadre of university faculty to identify the statically mean difference. Post-hoc with LSD test is used to test $H_{01.2}$ and $H_{01.3}$. The figures report that H_0 is rejected in case of professor and lecturer at 90%, and in case of associate professor and lecturer at 95% confidence level.

Table 3: Analysis of Variance of Job Cadre in Occupational Stress (ANOVA)

		Sum of Squares	df	Mean Square	F	Sig.
JOB STRESS	Between Groups	428.226	3	142.742	2.326	0.075**
	Within Groups	18474.29	301	61.376		
	Total	18902.51	304			

**The mean difference is significant at the 90% confidence level

Table 3.A: Analysis of Variance of Job Cadre in Occupational Stress (POST HOC)

	Lecturer	Assistant Professor	Associate Professor	Professor
LSD	Sig.	Sig.	Sig.	Sig.
Assistant Professor	0.12			
Associate Professor	0.04*	0.39		
Professor	0.08**	0.50	0.90	

*The mean difference is significant at the 95% confidence level.

**The mean difference is significant at the 90% confidence level.

To study the occupational stress levels of a university teacher with different experience ranges (0-3, 4-12, 13-20, and above 21 years) in the universities, table 4 is developed. The following figure shows that people up to 3 years (61%) reported stress as not a big problem, 34% indicate a moderate stress level and only 5% indicate that stress is a real problem. The faculty with a teaching experience of 4-12 years holds the same trend; 68% are of the opinion that stress is not big problem for them, 31% feel moderate level of stress, and less than one percent report that the stress is a real problem which is less as compare to new comers (0-3 years of experience). In the 13-20 years experienced, showed that 75% feel stress as not big problem, while 25% indicate moderate stress level, and stress as big problem is not highlighted in this experience bracket. In the same way only 3% people are in real stress problem, 22% have moderate stress level and 76% of the faculty feels stress as not a big problem, having experience 21 years and above.

Table 4: Frequency, Percentage and Stress Levels of Respondents across the Years of Experiences

Years of experience	Stress is not big problem		Moderate stress level		Stress is a real problem		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
0-3	65	61.30%	36	34.00%	5	4.70%	106	34.80%
4-12	80	67.80%	37	31.40%	1	0.80%	118	38.70%
13-20	33	75.00%	11	25.00%			44	14.40%
21 & Above	28	75.70%	8	21.60%	1	2.70%	37	12.10%
Total	206	67.50%	92	30.20%	7	2.30%	305	100.00%

One-way analysis of variance is applied to test the hypothesis that there is a significant difference in the mean scores of stress levels among faculty member having different years of experience and one way ANOVA was

used for this purpose. H_0 is not rejected ($P = 0.125 > 0.05$) in case of ANOVA computation on all experiences variables, which infer, there is not a significant difference between stress level of faculty members having different years of experience at 95% confidence level.

Although, ANOVA analysis of table 5 accepts H_0 , but Post-hoc with LSD test is again applied to see, if there is a significant difference in any two variables (Table 5-A). $H_{0.05,3}$ as ($P = 0.0 < 0.05$) is rejected, which infers that there is significant difference in stress level of faculty members caring experience 0-3 years and above 21 years of experience at 95% confidence level and remaining null hypothesis are not rejected, which shows remaining faculty members with different years of experience have no significant difference in stress level.

Table 5: Analysis of Variance of Teacher Experiences in Occupational Stress (ANOVA)

		Sum of Squares	df	Mean Square	F	Sig.
JOB STRESS	Between Groups	356.337	3	118.779	1.928	0.125
	Within Groups	18546.18	301	61.615		
	Total	18902.51	304			
	Total	29031.79	304			

Table 5-A: Analysis of Variance of Teacher's Experiences in Occupational Stress (Post Hoc)

LSD	0-3 Sig.	4-12 Sig.	13-20 Sig.
0-3			
4-12	0.12		
13-20	0.11	0.6	
21 & above	0.0*	0.4	0.7

To study the occupational stress levels of university teachers regarding different nature of jobs, table 6 is developed. The permanent teachers who reported occupational stress is not a big problem, are 67.7%, 31% having moderate stress level and a very negligible percentage of permanent teachers say that stress is a real problem. The category of contract teachers

reflects that for 71% occupation stress is not a big problem, 24% having moderate level of stress range, and just 5% have reported stress as a real problem. In the category of visiting faculty, 40% say occupation stress is not a big problem, and rest 60% fall in the range of moderate stress level.

Table 6: Frequency, Percentage and Stress Levels of Respondents across the Nature of Job

Nature of job	Stress is not big problem		Moderate stress level		Stress is a real problem		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Permanent	149	67.70%	68	30.90%	3	1.40%	220	72.10%
Contract	53	70.70%	18	24.00%	4	5.30%	75	24.60%
Visiting Faculty	4	40.00%	6	60.00%			10	3.30%
Total	206	67.50%	92	30.20%	7	2.30%	305	100.00%

To tests, the hypothesis that is there no significant difference in the mean scores of stress levels among faculty member having different nature of job by using one way ANOVA (Tables 7). Ho3 is accepted because ($P = 0.343 > 0.05$) which indicate no significant difference between stress level of faculty members having different nature of job at 95% confidence level. Post-hoc test further leads to acceptance of all null hypotheses at 95% confidence level, which reflected that there is no significant difference between stress levels of faculty members having different nature of jobs(Tables 7-A).

Table 7: Analysis of Variance of Teachers of Nature of Job in Occupational Stress (ANOVA)

		Sum of Squares	df	Mean Square	F	Sig.
JOB STRESS	Between Groups	133.569	2	66.785	1.075	0.343
	Within Groups	18768.94	302	62.149		
	Total	18902.51	304			

Table 7.A Analysis of Variance of Teachers of Nature of Job in Occupational Stress (Post-Hoc)

LSD	Visiting Faculty Sig.	Contract Sig.	Permanent Sig.
Visiting Faculty			
Contract	0.214		
Permanent	0.148	0.713	

6) CONCLUSIONS

The following are the findings of the analysis of descriptive and inferential statistics:

- 1) In the category of teacher cadre (Table 2), occupational stress is not considered a very crucial hurdle in their performance. “Stress is not a big problem” as stated by lecturers (63%), assistant professors (70.4%), associate professors (75.8%) and professors (75%). Stress is reported by very small number of teacher as a big problem, while remaining respondents of a moderate level of stress are; 34% lecturers, 27% assistant professors, 24% associate professors and 21% professors. To test the hypothesis (Table 3) that there is a significant difference in the means score of faculty member having different job cadres regarding their stress levels, ANOVA is applied. Ho1 is rejected, which indicates a significant difference between stress levels of faculty members having different cadre of job at 90% confidence level. The H01.2 and H01.3 (Table 3-A) are also rejected, which infers significant difference of lecturers with professors and associate professors regarding their level of stress. While no significant difference is found between lecturers and assistant professors and assistant professors and associate professors, which concludes the acceptance of Ho1.1 Ho1.4. Ho1.5, Ho1.6 are also not rejected as there is no significant difference between assistant professors and professors and associate professors and professors in terms of occupational stress, they are facing.
- 2) The stress is not a big problem (Table 4), reported by people having 0-3 years of experience 65% and above 21years experienced (75%), which indicate the decrease in stress with the increase of professional experiences. Up to 3 years experienced faculty got highest frequency

in reporting moderated stress level, followed by decrease in stress with the increase of experience period. The inferential statistics (Table 5) are employed to test the significance of difference across the various age groups. The results show that there is insignificant difference in the mean scores of stress levels among faculty member having different years of experience. The ANOVA results led to acceptance of H_{02} , claiming no difference in different age brackets. However, application of Post-hoc (Table 5-A) inducted statistically significant difference between age group of 0-3 years and above 21 years of faculty members. The results support the rejection of $H_{02.3}$, claiming no significance difference in stress level between faculty up to 3 ears and above 20 years of age. Among the not rejected hypotheses include (Table 5-A) $H_{02.1}$, $H_{02.2}$, $H_{02.4}$, $H_{02.5}$, $H_{02.6}$, which show no difference between different pairs of experience period regarding level of stress, experienced by the universities' faculty.

- 3) The figures of Table 6 regarding different nature of jobs reveals that with the change in nature of job from contract, permanent to visiting, level of stress is increased. The people serving on contact basis are 70% while visiting faculty are 40% which have reported stress as not big problem for them. The visiting faculty is comparatively more stressed as compared to permanent or contractual faculty. The computation of ANOVA (Table 7) reveals no statistically significance difference among different types of teaching options, such as contract, permanent and visiting. H_{06} not rejected, which led to the rejections of other hypotheses such as $H_{03.1}$, $H_{03.2}$, and $H_{03.3}$, which shows that there is no significant difference between stress levels of faculty members having different nature of jobs

7) LIMITATIONS OF THE STUDY

The study is limited to the sampled universities of Punjab province, which excludes institutions of higher education of other provinces of Pakistan and areas like federal territory, Azad Jammu & Kashmir, Quetta and Karachi. The representative sample also delimits the researcher for wide coverage of views and to the faculty members of universities only. The time and budget were among the other constraints, which limited the scope and subject coverage of the research. The universe of the research is still less documented, which may deviate to some extent from the characteristics of sampled respondents. The secondary data in the context

of Pakistani universities, related to subject is rarely available, which undermines literature contribution of this perspective.

8) RECOMMENDATIONS

The detailed analysis bring forward number of suggestions for the policy makers of universities, managers/deans of universities, faculty members of universities of private and public sector universities. They should take inputs from faculty members to manage their stress and should take decision in the light of their inputs.

The policy makers of universities should make different strategies to cope with stress; deans of universities should launch specific training to manage the behaviors of disruptive people and encourage involvement of faculty in decision making; faculty members of universities should adopt smooth communication especially in lecturers or assistant professors or associate professors or professors and share professional experience with colleagues; private universities should provide fair promotion based upon teaching and research experience; and should held extensive training on stress management techniques for different cadres of university teachers.

The policy maker allocates reasonable funding to mangle their work stress. They should chalk out strategies and plans which could minimize their level of stress at work. The Deans and academic Heads of the Universities should have friendly relationship with their teachers and should encourage and supportive collaborative culture in their respective departments. The course allocation to the teachers should be made according to the competency, experience & choice of the teacher which will certainly minimize the level of stress and will improve their quality of work. They should be provided specific trainings to manage their stress.

The involvement of the faculty members in different polices, plans, activities and decision making will improve their quality of work. The decision makers of the Universities should encourage the research culture and facilitate the researchers to improve the quality of research work. In this regard, special incentives should be provided to the University's faculty to increase their involvement in the research work.

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