

## **STRESS & BURNOUT FACTORS OF UNIVERSITY TEACHERS AND THE MODERATING ROLE OF COPING STRATEGIES**

**Syed Gohar ABBAS**

Doctorant, IAE Lyon, Université Lyon3, (France)

Contact: syed.abbas3@univ-lyon3.fr

**Alain ROGER**

Professor, IAE Lyon, Université Lyon3, (France)

Contact: alain.roger@univ-lyon3.fr

### **ABSTRACT**

Teaching at a university is no longer considered as a low-stress profession as it was often considered before [Winelfield et al., 2003] in western countries, but also in developing countries like Pakistan where this study took place. In Pakistan growth in the higher education sector was particularly strong since year 2000 and competition has intensified because of entrance of many private sector universities which resulted in heavy responsibilities and challenging demands on faculty members. In wake of recent challenges faced by Higher Education Institutes (HEIs) which led to performance pressures and increased workload, coping with stress becomes an important research issue in academic contexts.

The current study was conducted on a sample of 80 individuals (61 men and 19 women) of a public sector university of Pakistan. It is focused on the moderating effect of coping skills on stress and burnout. The first part of our research analyzes the impact of overload on stress and burnout. Coping skills are then considered as moderators of this relationship. Two classical scales have been used, one developed by Pareek [2002] named ORS (Organizational Role Stressors) scale, and the other by Maslach & Jackson [1986] named MBI-ES, (Maslach Burnout Inventory - Educators Survey). Scales measuring stress (General and Job Related) and coping resources (Proactive Planning, Social Support, Acceptance and Avoidance, Turning to God) were constructed based on existing scales and were based on the results of a preliminary exploratory study (interviews).

Results reveal that social support significantly moderates the relationship between overload and stress. Avoidance behaviors showed a significant positive impact on stress and depersonalization. Stress management interventions at primary, secondary and tertiary level have been recommended to be help universities dealing with the negative effects of chronic stress and/or burnout.

**Key words:** Overload, stress, burnout, coping, faculty, university

# **STRESS & BURNOUT FACTORS OF UNIVERSITY TEACHERS AND THE MODERATING ROLE OF COPING STRATEGIES**

## **Introduction**

Previously the job of higher education academic staff has been often considered as being relatively stress-free; it has been envied for its relatively lower workload, its flexibility, tenure and the opportunity of overseas trips for conferences [Gillespie et al., 2001]. However, recently new challenges have imposed on them more administrative tasks e.g. entrance of private sector universities as competitors, research based performance pressures, rankings and the requirement of quality certifications to attract and retain a talented pool of faculty [Rajarajeswari 2010]. This has increased their level of stress and burnout, and higher education institutes have been considered as “stress factories” [Barkhuizen & Rothmann, 2008, p. 321]. In this context, teachers are vulnerable to serious risks of health and well being [Taris et al., 2001]. However people vary significantly in beliefs, values, and personal resources, and they appraise the situations differently. Stress is not expressed on the same way by different people in different work contexts [Karimi & Alipour, 2011]. Therefore it is important to get a deeper knowledge of the sources and moderators of stress and on the functional coping strategies which can help overcome the impact of stressors [Srivastav, 2007] and the long term chronic stress that could lead to burnout [Cherniss, 1980].

Stress and burnout, if not managed properly, increase turnover intentions of the good performers, and indirectly increase recruitment and selection costs [Ongori, 2007; Grigoryan, 2008,]. Even if they do not quit, stress affects their physical and psychological health [Christo & Pienaar, 2006]. Therefore, there is a need for management to develop appropriate interventions to manage stress in their organizations [Grigoryan, 2008, Ongori & Agolla, 2008].

Our study was conducted on academic staff of a public sector university of Pakistan. It aims at understanding the relationship between stressors, coping strategies, stress and burnout. More precisely, it examines the moderating effect of coping strategies/resources on the relationship between different stressors and stress or burnout. After reviewing the literature on stress, burnout and coping, our research design and methodology will be presented. The results will then be analyzed and discussed in end.

## **1. Key concepts and literature review**

For most of the people nowadays, stress and coping has become a “part of life” [Iwasaki et al. 2005, p. 1] and it refers to a feeling of physical and/or emotional tension because of being unable to cope with anxiety and demands, as a response to challenging events which may lead to burnout in extreme cases [Cherniss, 1980; Kahn et al., 1964; Lazarus, 1991; Selye, 1976].

**1.1 Stress:** Although many studies have been conducted on stress, this term is still subject to “divergence of opinions and is covered by a mask of confusion” [Barkhuizen & Rothmann, 2008, p. 321]. According to Lazarus [1990, p. 4], “stress is a multivariate process involving inputs, outputs and the mediating activities of appraisal and coping”. Occupational stress is defined as the perception of a discrepancy between environmental demands (stressors) and individual capacities to fulfill these demands in the job [Topper, 2007; Vermunt & Steensma, 2005]. Stressors are the factors which cause stress. Stress can be positive (the good stress or eustress [Selye, 1976]) when it inspires and encourages. On the other side, distress is the bad

stress, the one that gets the person irritated and eventually leads to dysfunctional consequences [Rees & Redfern, 2000].

**1.2 *Burnout:*** Chronic and continual stress ultimately leads to the state of exhaustion and fatigue termed as burnout [Cherniss, 1980]. Burnout consists of three dimensions [Maslach & Jackson, 1986]: the first dimension is emotional exhaustion, where the individual is in a state of depletion of emotional resources and feels worn out. The second is depersonalization which is a negative, cynical attitude towards one's work or the recipients of one's care (e.g. students or administrative staff in the case of teachers' burnout). The third dimension of burnout is decreased personal accomplishment, marked by a sense of inefficacy, negative self evaluation and inadequacy with reference to job performance.

Burnout is a work-related syndrome that mostly influences human-service professionals [Togia, 2005, p.130] and it is often regarded as a serious problem among teachers [Van Horn et al., 1997]. Burnout has been mainly found in individuals who come across high level of interaction with the public and whose job demands include a high sense of ideals, for example medical professionals and teachers [Evers et al., 2005]. It is also the result of excessive workload, conflicting values, lack of rewards or role stress [Maslach & Leiter, 1999; Lee & Ashforth, 1996].

**1.3 *Coping:*** "Coping is any effort, healthy or unhealthy, conscious or unconscious, to prevent, eliminate or weaken stressors, or tolerate their effects in the least harmful manner" [Matheny et al., 1986]. Lazarus [1993, p. 8] conceptualizes coping as "a person's ongoing efforts in thought and action to manage specific demands appraised as taxing or exceeding the resources of the person". Folkman and Lazarus [1980, 1985] developed a Ways of Coping Scale. A clear difference can be seen between two major types of coping termed as problem-focused coping and emotion-focused coping. Problem-focused coping aims to solve the problems in advance or in other words to trying maneuvering the source of stress before it creates any problem, whereas emotion-focused coping aims to reduce the emotional distress which is linked with a situation [Carver et al., 1989]. Problem-focused coping strategies (e.g. proactive coping) involve goal setting and are associated with social support resources in contrast to a reactive strategy where coping is used after stress has been experienced [Greenglass and Fiksenbaum, 2009]. Emotion-focused coping includes acceptance and positive interpretation of stressful events, denial, avoidance and seeking social support for emotional reasons [Carver et al., 1989]. Problem-focused coping is used mostly in situations which were appraised as changeable and emotion-focused coping in scenarios appraised as unchangeable [Lazarus & Folkman, 1984].

Taris et al. [2001, p.294] in their study on Dutch university staff mentioned that strains and withdrawal behaviors (avoidance) were expected to be most prominent among those faculty members who reported "having few resources and/or who reported high job demands". Dick & Wagner [2001] while studying the "Stress and strain in teaching" found that workload leads to physical stress, but that the support from the principal (supervisor) reduces the negative perceptions related to workload: social support served as a moderator between stress and strain. Their results also show that teachers using 'adaptive' coping strategies have a lower level of burnout compared to those who used 'ignoring' or 'avoiding' coping tactics.

**1.4 *Relationship between stress, burnout and coping:*** Lazarus (1966, 1984) argues that stress consists of three processes including primary appraisal (perceiving a threat), secondary appraisal (potential response to threat) and coping (executing the response). Cherniss [1980]

termed burnout as a three phase process including stress, strain and coping. Burnout can be the result of the constantly increasing effect of stressful job situations that exceeds the coping capacity. It can lead to introversion [Toker, 2011], depersonalization and indifference in interpersonal relations [Ozdemir, 2006]. However, even with constant levels of stressors, coping strategies can act as moderators to buffer the stress-strain relationship and reduce the level of burnout of employees [Yip et al. 2008]. Coping has often been viewed as reaction to stressful situations, but recently it has also been defined as an action before an anticipated stressful situation, with multiple positive outcomes on stress and burnout [Greenglass and Fiksenbaum, 2009]. In other words, appropriate coping strategies should be used to reduce consequential strains [Dick & Wagner, 2001].

### ***1.5 Sources and Consequences of Stress and Burnout in Academic Staff***

Research shows that teachers' stress becomes problematic and quite harmful in terms of its consequences when the challenges teachers face outpace their perceived ability to cope, or when they perceive that their important needs are not being met [Kahn et al., 1964]. Johnson et al. [2005] studied the relationship between physical stress, psychological stress and job satisfaction among 26 different professions and identified teachers among those who showed worse than average scores on each of the three factors. Barkhuizen & Rothmann [2008] in their studies on occupational stress of academic staff in South African higher education institutions found that work overload and work-life balance contributed significantly to psychosomatic stress of teachers. A research on sources of occupational stress on employees of a Quebec University in 2005 by Biron et al. [2008] revealed that the relationship with seniors and participation in decision making were reported as factors contributing to teacher's well being. Studies carried out by Lactritz [2004] and Gillespie et al. [2001] in Australia examined burnout and related issues among university faculty and found that "burnout shows significant correlations with numbers of students taught, time invested in various activities, numerical student evaluations", insufficient financial support and resources, overload, poor organizational practices, insecurity and inadequate recognition.

Though research revealed that some level of stress is imperative to improve job performance, most of the literature on stress among academics reveals severe negative consequences of chronic stress and burnout. Dick & Wagner [2001, p. 244] mentioned that "teacher stress is seen mainly as a negative affect with diverse psychological (e.g., job dissatisfaction), physiological (e.g., high blood pressure), and behavioral (e.g., absenteeism) correlates". According to them, these negative stress outcomes in the long run lead to psychosomatic and even severe health problems like heart diseases. Sufficient evidence in this context suggests that "teachers are vulnerable to serious risks of health and well being" [Taris et al., 2001, p. 284]. On the positive end however, research shows that a certain amount of stress is unavoidable and even beneficial [Yerkes & Dodson, 1908].

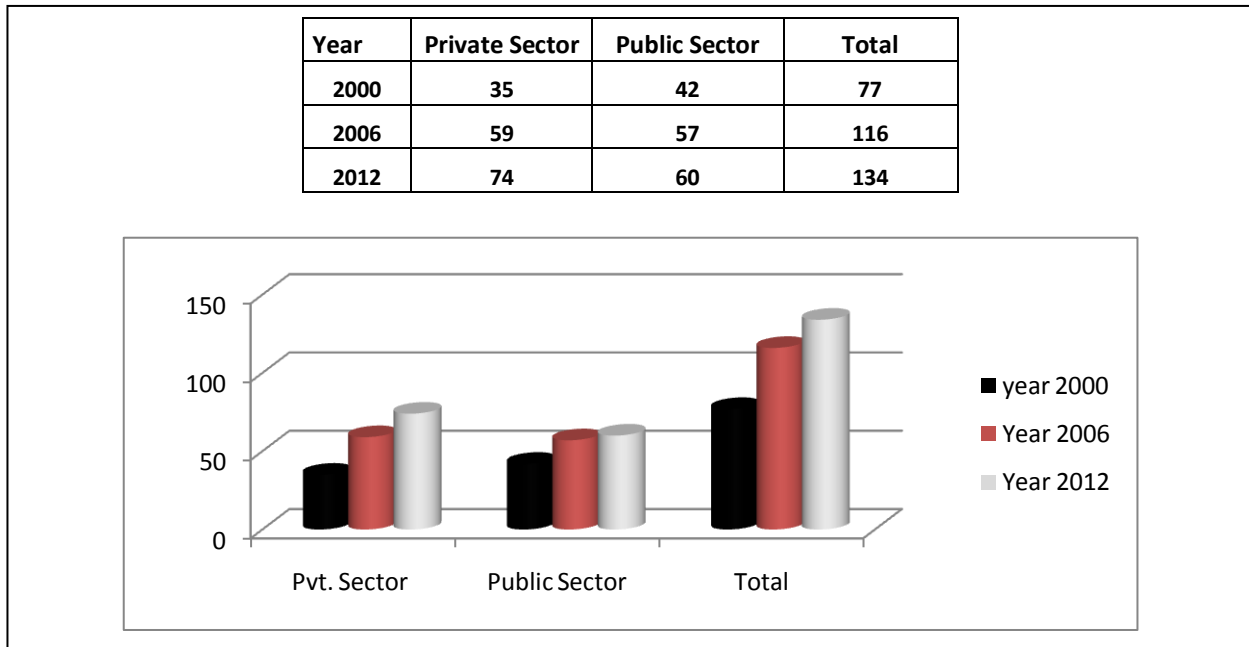
### ***1.6 The context of the study: Higher Education Institutes (HEIs) of Pakistan***

In the higher education sector of Pakistan (where this study took place), the above mentioned challenges have created a new context for institutions which are striving their best for accreditations, high rankings and quality certifications. Promotion policies in HEIs of Pakistan are strictly based on research papers to be published in high-ranked journals, categorically identified by Higher Education Commission of Pakistan ([hec.gov.pk](http://hec.gov.pk)). On the average, lecturer and assistant professor faculty members have to teach 300 (credit) hours of course per year

(usually in two semesters) and usually the class strength is 40-50 students. The performance pressures with particular reference to research has gained more importance than ever before and the workload has increased in spite of inadequate resource allocations to this sector, thus making the higher education academic staff more vulnerable to stress.

Pakistan has observed more rapid economic, social, political and technological changes than ever before, the number of universities have almost doubled during last 12 years (See table 1) and the future of higher education in Pakistan depends on how the stakeholders respond to these challenges [Rao, 2003]. Because of the efforts of Higher Education Commission of Pakistan, HEIs are gaining more and more attention both at local and international level, but on the other hand faculty members in universities are facing many problems because of work-overload, work-life imbalance, role ambiguity or lack of resources, which must be addressed properly at organizational and individual level. There is an ominous need of HRM research on causes and consequences of stress in higher education which is an area of main importance for developing countries like Pakistan.

**Table 1 : Increase in Private and Public Sector during 2000-2012 (Source: Education Statistics of Pakistan)**



## 2. Instrumentation and hypotheses:

Some of the problem-focused and emotion-focused coping strategies were used as moderating variables for our hypotheses on the relationship between stress or burnout (as dependent variables) and overload (as an independent variable). The literature expresses two main types of relationships between stressors, stress or burnout and coping strategies:

- The impact of Job-related stressors on the different dimensions of stress or burnout.
- The moderating effect of various coping skills on the link between stressors and stress or burnout.

Before stating the hypotheses, we need to define the variables more precisely and check their reliability on our sample of faculty members.

### 2.1 *Sampling and Data Collection:*

The target sample was academic staff from a public sector university of Pakistan. The respondents belonged to different departments and had different levels of experience. Examining academic stress without considering the professional and personal differences is inappropriate as “academics is not a homogeneous group of professionals” [Barkhuizen & Rothmann, 2008, p. 324]. Therefore in this study two demographic variables, gender and experience are used as control variables. Table 2 shows these demographic details of the respondents:

**Table 2:** Demographic details of the respondents (N=80)

Demographic Characteristic		Number	Percentage
GENDER	Male	61	76 %
	Female	19	24 %
EXPERIENCE	Less than 5 years	39	49 %
	More than 5 years	41	51 %

A total of 100 questionnaires were distributed among the faculty members through their departmental coordinators. Convenience based sampling has been used. Through e-mails and telephonic requests, they were invited to visit the meeting rooms of their concerned department to fill the questionnaire in a congenial environment. Confidentiality and anonymity was guaranteed. 80% of the respondents returned the questionnaire.

### 2.2 *Instrumentation:*

A survey instrument in the form of a close-ended questionnaire was developed which was composed of four parts. However, to provide a preliminary understanding of some of the tools used in this study and to adapt the already existing scales in this particular context, 20 faculty members were interviewed thoroughly. The interviews provided a number of insights into their perceptions regarding stress, burnout and coping which helped to develop or modify some survey instruments. The details of the instruments used are as under:

**2.2.1 *Overload:*** Overload was measured by a scale adapted from Pareek [2002] merging two highly inter-correlated components (stressors) of this scale: ‘role overload’ (sample item: “*Too many and too high expectations from one’s role which s/he can’t fulfill*”) and ‘inter role distance’ (sample item: “*Demanding Organizational roles interfering with Family roles creating work-life imbalance*”). The 10 items composing this scale had a reliability of Alpha = .82. .

**2.2.1 *General and Job Related Stress Indicators:*** Some of the existing instruments including Four Dimensional Stress Questionnaire (4DSQ – Terluin et al., 2004) have been adapted in this survey but prior to that, our interviews with twenty faculty members helped to identify pertinent health related stress indicators. These indicators assess various symptoms of stress over a period of time (not linked to specific event). A factor analysis identified two dimensions; the first

dimension includes 6 items and is clearly related to Job Stress (e.g. “*I feel recurrent headaches because of my job*”). The second dimension including 5 items relates to General Stress (e.g. “*Everything seems worthless and meaningless to me*”). Cronbach’s Alphas are 0.79 for Job related stress and 0.76 for General stress (see table 4).

**Table 3:** Two dimensions of stress (Factor analysis, Varimax rotation)

Dimensions of Stress	Component	
	Job Related Stress	General Stress
<i>During job, I feel tense and get easily irritated.</i>	.76	
<i>I feel recurrent headaches because of my job.</i>	.76	
<i>Because of job frustrations, I feel migraines.</i>	.74	.31
<i>I feel my sleeping routine is quite disturbed because of my job.</i>	.64	
<i>I feel I am highly stressed most of the time because of the nature of my job</i>	.62	
<i>Because of my job, I feel frequent anxiety</i>	.55	
<i>Everything seems worthless &amp; meaningless to me</i>		.77
<i>I feel I cannot enjoy anything anymore</i>	.32	.75
<i>I feel that I cannot do anything productive anymore.</i>	.31	.72
<i>I would be better if I were dead</i>		.69
<i>I face difficulty in getting asleep at night even if I am tired.</i>		.53
Percentage of Variance (Total: 52.1 %)	27.7	24.4
Cronbach alpha	0.76	0.79
<i>(only coefficients above .30 are presented in the table)</i>		

**2.2.3 Maslach Burnout Inventory-Educational Scale (MBI-ES):** An adaptation of MBI-ES [Maslach & Jackson, 1981: 1986] was used in our study. MBI-ES consists of 22 statements, measuring the burnout on three subscales: Emotional Exhaustion, Depersonalization and Personal Accomplishment. Reliability coefficients of MBI-ES have been found above 0.70 in original studies by Maslach & Jackson [1981]. According to them, High scores of Emotional Exhaustion and Depersonalization along with a low score of Personal Accomplishment reveal a high level of burnout. In our study, Cronbach alphas were .80 for Emotional Exhaustion, .74 for Depersonalization and .65 for Personal Accomplishment. In spite of this lower score for personal accomplishment, we decided to keep this variable.

**2.2.4 Coping Behaviors:** Based on the preliminary interviews and literature available, nine dimensions of coping inventory have been finalized and adapted to our study from Carver et al. (1989). These dimensions included acceptance, avoidance, active planning, social support, turning to God, venting of emotions, mental disengagement and ability to relax. Some of these had reliability scores (Cronbach alpha) under .60 and were eliminated. Five dimensions were selected for our study as the factor analysis identified five clear dimensions, and although some of the reliability scores were slightly under 0.70. These include acceptance (.70), avoidance (.71), active planning (.63), social support (.68) and turning to God (.78).

### 2.3 Hypotheses:

Based on these measures and on the literature review, specific hypotheses were developed to characterize the links between stressors, coping strategies, stress and burnout.

Overload happens when people are subject to too high expectations from their organizations and the demanding organizational roles interfere with family roles, creating a work-life imbalance (Srivastav, 2007). As discussed in the literature review, many studies in the academic context found overload stressors as being major sources of stress and burnout [Bell et al., 2012, Biron et al., 2008, Gillespie et al., 2001, Lactritz 2004]. Based on these studies, following hypotheses are proposed:

***H1(a): Overload increases stress***

***H1(b): Overload increases burnout***

Coping strategies include a diverse range of coping variables: social support resources and proactive planning are considered as problem-focused coping, whereas avoidance behavior and acceptance (positive reinterpretation) are considered to be emotion-focused coping strategies (Carver et al., 1989).

**Social support** is defined as effective support such as love, respect, confirmation of actions and readiness to help by the people around [Kahn & Antonucci, 1980]. Relationship between occupational stressors and strains is affected by social support, i.e. high social support protects individuals from negative effects of occupational stressors. It has also been found as having a moderating effect on the relationship between stressors and ill health, as social support gives access to social resources and is typically attached with perceptions of positive feelings which reduce the negative effects of stressors [Frese 1999]. Leiter & Meechan [1986] report that social support is associated with less burnout and might be helpful in moderating burnout. Based on these studies, following hypotheses are proposed with reference to social support coping resources:

***H2(a): Social support resources reduce stress.***

***H2(b): Social support resources reduce burnout***

***H3(a): Social support resources reduce the impact of overload on stress.***

***H3(b): Social support resources reduce the impact of overload on burnout.***

One of the dimensions of problem-focused coping, **pro-active coping**, is future oriented, which suggests that tactics are elaborated in advance to cope with potential stressors. [Aspinwall & Taylor 1997, Folkman & Moskowitz 2004, p. 757]. “Active coping refers to strategies that are directed at problem solving, and entail taking direct action to confront the stressor and reduce its effects” [Updegraff and Taylor 2000, p. 13]. According to Rowe [2000], people using proactive coping strategies can effectively cope with the stressors; feel higher level of personal accomplishment and less emotional exhaustion. Research suggests that the use of active coping strategies in dealing with a stressful life event can contribute to lower levels of depression and are associated with less burnout [Shaufeli & Enzmann, 1998]. Based on this, following hypotheses are proposed:

***H4(a): Proactive coping reduces stress***

***H4(b): Proactive coping reduces burnout.***

***H5(a). Proactive coping reduces the impact of overload on stress***

***H5(b). Proactive coping reduce the impact of overload on burnout***



“**Acceptance** and positive reinterpretation is one of the dimensions of emotion-focused coping. It refers to acceptance of a stressor as real and unavoidable and attempts to focus on the positive aspects of a situation” [Updegaff and Taylor 2000, p. 13]. Schaefer & Moos [1992] have found that positive reinterpretation and acceptance are strongly related to stress. When the stressors are unchangeable (not manageable), positive reinterpretation and acceptance coping tactics are fruitful [Carver et al. 1989]. Based on this, following hypotheses have been proposed:

**H6 (a):** *Acceptance coping reduces stress.*

**H6 (b):** *Acceptance coping reduces burnout*

**H7(a):** *Acceptance coping reduces the impact of overload on stress.*

**H7(b):** *Acceptance coping reduces the impact of overload on burnout*

**Avoidance coping** in our study refers to emotion-focused tactics. Avoidance coping has been usually found associated with higher levels of burnout [Etzion & Pines 1986]. It may reduce the distress associated with a stressors in the short run, but without reducing the harmful aspects of the stressors in long run: mental and behavioral disengagement, drugs, denial etc [Updegaff and Taylor, 2000; Carver et al., 1989, Folkman & Moskowitz, 2004]. Taris et al., [2001] found that withdrawal behaviors (avoidance) were expected to be most prominent among those faculty members who had little resources coupled with high job demands. Dick & Wagner [2001] found that teachers using ignoring or avoiding coping tactics revealed higher level of burnout compared to those used adaptive coping strategies.

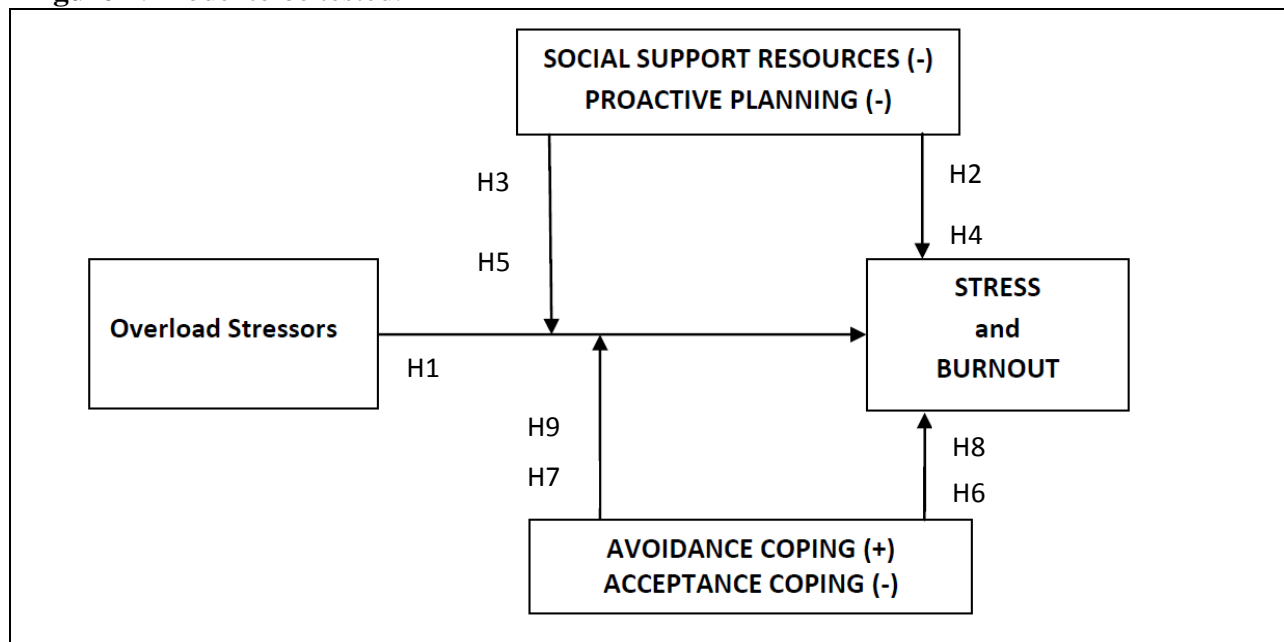
**H8(a):** *Avoidance coping increases stress.*

**H8(b):** *Avoidance coping increases burnout.*

**H9(a):** *Avoidance coping increases the impact of overload on stress*

**H9(b):** *Avoidance coping increases the impact of overload on burnout*

**Figure 1:** Model to be tested.



### 3. Results

Table 4 shows the summary of the results of a hierarchical regression predicting stress and burnout because of overload and coping variables. It also includes the interactions with the coping variables.

When gender and experience were entered as control variables in the first step, the adjusted R-square varies from -.01 to .07 (for Job related stress), indicating that these two variables have little impact on our dependent variables. In step 2, when the main effects were entered, the results showed an increase in adjusted R-square varying from -.05 to .38 (for General stress). In step 3, which included the interactions, the increase in adjusted R-square was under .03 for all the variables except for Job related stress (.1).

The main significant results are highlighted in grey in table 4.

- 1- Overload has a significant positive impact on job related stress (JRS), general stress (GS) and mainly on emotional exhaustion (EE). (Beta values for JRS=.29\*, GS= .214\* and EE= .53\*\*).
- 2- Acceptance has a significant positive impact on general stress. (Beta= .27\*)
3. Avoidance has a significant positive impact on job related stress, general stress and depersonalization. (Beta=.28\*, Beta=.58\*\*, Beta=.32\*)
4. Social support has a significant negative impact on general stress. (Beta= -0.23\*)
5. Social support significantly reduces the impact of overload on general stress (Beta= -0.23\*)
6. Social support significantly reduces the impact of overload on job related stress (Beta= -0.37\*\*)
7. Turning to God was included in the regression for exploratory purposes. It had no significant impact on any on the dimensions of stress or burnout.

**Table 4: Hierarchical regression model of predicting Stress and Burnout from Overload, and Overload interactions with Coping variables**

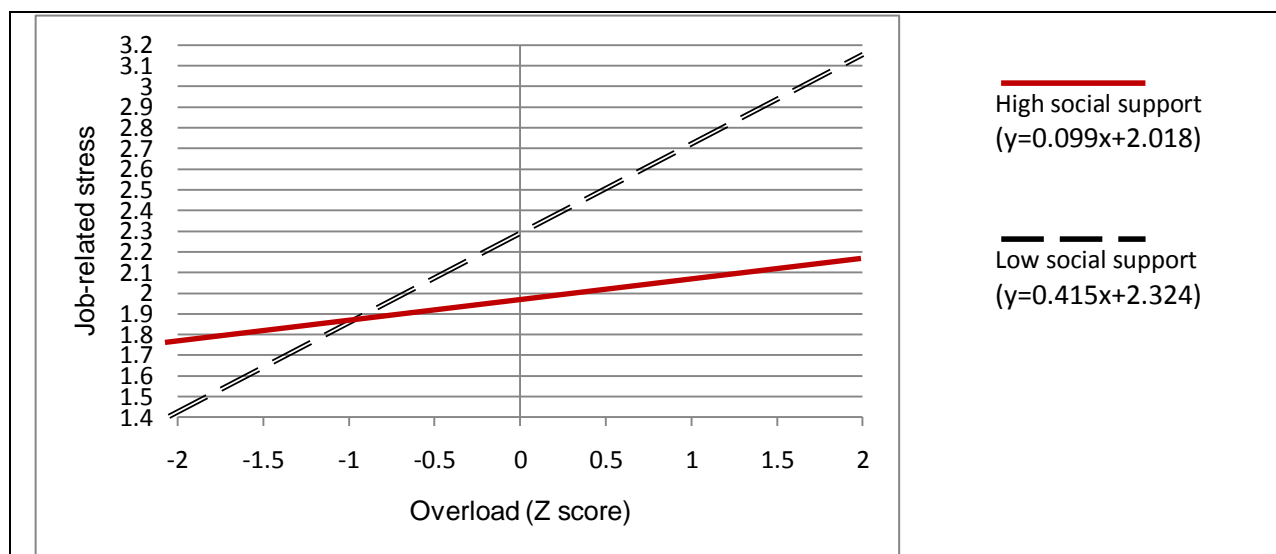
	STRESS (Beta Values)		BURNOUT (Beta Values)		
	Job Related Stress	General Stress	Emotional Exhaustion	Depersonalization	Personal Accomplishment
<b>STEP 1: Control Variables</b>					
Gender	.09	.11	.11	-.21	-.07
Experience	.17	.17	.03	.06	-.02
<i>R</i> <sup>2</sup>	<i>.09</i>	<i>.08</i>	<i>.06</i>	<i>.03</i>	<i>.01</i>
<i>Adjusted R</i> <sup>2</sup>	<i>.07</i>	<i>.05</i>	<i>.04</i>	<i>.02</i>	<i>-.01</i>
<b>STEP 2: Overload and coping</b>					
Overload	.29*	.21*	.54**	.16	-.19
ACCEPTANCE	-.02	.27*	.03	.10	-.05
PROACTIVE	-.08	-.01	-.08	.02	+.16
AVOIDANCE	.28*	.59**	.22	.32*	+.08
SOCIALSUPPORT	-.12	-.23*	-.09	.02	-.19
TURNING to GOD	.00	-.07	.01	.03	-.05
<i>R</i> <sup>2</sup>	<i>.30</i>	<i>.49</i>	<i>.37</i>	<i>.13</i>	<i>.05</i>
<i>Adjusted R</i> <sup>2</sup>	<i>.22</i>	<i>.43</i>	<i>.30</i>	<i>.08</i>	<i>-.06</i>
<i>Change in Adjusted R</i> <sup>2</sup>	<i>.15</i>	<i>.38</i>	<i>.26</i>	<i>.07</i>	<i>-.05</i>
<b>STEP 3: Interactions</b>					
Overload x ACCEPTANCE	.13	.04	.10	-.03	-.18
Overload x PROACTIVE	.15	-.01	-.01	.16	+.10
Overload x AVOIDANCE	-.04	.05	-.00	-.16	-.03
Overload x SOCIALSUPPORT	-.37**	-.23*	-.16	-.08	+.07
Overload x TURNING to GOD	.00	-.08	-.15	.01	-.13
<i>R</i> <sup>2</sup>	<i>.42</i>	<i>.54</i>	<i>.43</i>	<i>.22</i>	<i>.09</i>
<i>Adjusted R</i> <sup>2</sup>	<i>.31</i>	<i>.45</i>	<i>.32</i>	<i>.08</i>	<i>-.08</i>
<i>Change in Adjusted R</i> <sup>2</sup>	<i>.10</i>	<i>.02</i>	<i>.02</i>	<i>-.01</i>	<i>-.03</i>

Note: Entries are based on Z-values (standardized) regression coefficient,

- \* $p < .05$ , \*\* $p < .01$

Figure 2 illustrates the moderating effect of Social support on the relationship between Overload and Job-related stress. For high levels of Overload, Social support clearly reduces the level of stress. The post-hoc test suggested by Aiken & West (1991) shows that the difference between the slopes is highly significant for low social support ( $t= 3.28, p<0.01$ ).

**Figure 2:** Moderating effect of Social support on the link between overload and Job-related stress.



	Slope	ES	t	p (bilateral)
Low social support (m - 1 s.d.)	0.415	0.126	3.28	.0012
High social support (m + 1 s.d.)	0.099	0.089	1.11	.2695

#### 4. Discussion

The purpose of this study was to examine the relationship between overload, stress or burnout, and coping tactics/resources of academic staff, based on a sample of faculty members in a public sector university of Pakistan. The higher education sector of Pakistan has witnessed many challenges during the last decade; competition has intensified because of the entrance of many private sector universities (see figure 1), accreditations, competition for high rankings, performance pressures and quality certifications which resulted in heavy responsibilities and challenging demands on faculty members, making them more vulnerable to stress. Previous research had shown strong relationships between perceived stress, coping strategies, and the consequences of stress-related maladaptive responses [Endler & Parker 1990]. Our results show that overload is significantly related to some of the dimensions of stress and burnout. Three types of coping mechanisms, avoidance, acceptance and social support resources were also linked to stress or burnout, and social support was moderated the relationships between overload and stress. No significant difference was observed between male and female teachers. Similarly no significant difference was observed between experienced (> 5 years) and less experienced faculty members.

As expected, “**overload**” had a significant positive impact on job related stress, general stress and emotional exhaustion, thus supporting our hypotheses 1(a), i.e. *Overload increases stress* and 1(b), i.e. *Overload increases burnout*, although this hypothesis was only verified for one of the dimensions of burnout, Emotional exhaustion.

These results confirm those of some authors including Taris et al [2001] and Gillespie et al [2001] who mentioned that increase in student enrollment, mandatory use of new technologies, additional administrative tasks, time pressures and unrealistic deadlines, which have increased the workload for many academicians, are a source of stress. Maslach et al [2001, p. 403] also described emotional exhaustion as a response to job overload and mentioned that too many challenging demands ultimately exhaust an individual’s energy, thus leading to emotional exhaustion. The results of our study support Leiter [1991], who mentioned that emotional exhaustion arises as a response to challenging work environments and is followed by cynicism as employees try to seek emotional distance from their job and from the recipients of their service.

In Pakistan’s higher education context, our preliminary interviews revealed that faculty members are not only occupied with heavy workloads of teaching and research but are also engaged in many administrative tasks in parallel. Their organizational roles interfere with their family life even on weekends, which makes them emotionally exhausted most of the time.

“**Social Support**”, in our study, had a significant impact to reduce general stress, but not job-related stress; it had no significant effect on burnout, which partly confirms hypothesis H2 (a), but not H2(b). Social support also interacted with overload and showed a significant moderating effect on both dimensions of stress (general and job related), suggesting that faculty members who have sufficient social support resources are less vulnerable to stress, when they are exposed to overload, but it had no significant moderating effect on the link between overload and burnout. These results support our hypothesis H3 (a), but not H3 (b).

Our results corroborate those of Yip et al. [2008], Gillespie et al. [2001], Maslach et al. [2001] and Salami [2011]. Yip et al. [2008] mention that employees use more intangible or emotional support and can express themselves better if they have social support: this support weakens the relationship between overload and cynicism (or depersonalization). Human interaction helps employees to develop feelings of better moral standing, which contributes to an improved state of well-being; employees work more effectively if they receive support when it is required [Park et al., 1996]. Support from subordinates, peers and supervisor consists in sharing workload, being able to ask for help or sharing. This support plays an important role to cope with work related stress [Gillespie et al. 2001].

Our results do not confirm the buffering effect of support resources found in the literature on the impact of overload on burnout: a research by Himle et al [1991] indicated for example that some kinds of social support can be helpful in moderating this relationship. In their studies on burnout among social workers, they found that informational and instrumental support given by both co-workers and supervisors had moderating effects on the link between stressors and burnout components.

Regarding “**proactive coping**”, hypotheses H4 and H5 were not supported by our results: no significant relationship was found between proactive coping and stress or burnout. Proactive coping in our results did not even act as a moderator between overload and stress or burnout. These results contradict Yip et al’s [2008] suggestion that rational problem solving, a form of active coping, has a positive role in work well-being and strain reduction.

In our results, employees anticipating a positive reaction to stress and taking stress as a source of inspiration and motivation (high **acceptance**) are more prone to general stress, as opposed to hypothesis 6(a) which suggested a negative relationship. No significant relationship is found with job-related stress or any of the burnout dimensions. There is no support either for hypotheses 6(b), 7(a) and 7(b). Maslach et al. [2001, p. 405] found that employees taking stress as a challenge (high acceptance), who work hard in support of their ideals but cannot achieve the desired goals experience higher stress, but this finding was not confirmed on our sample of faculty members in Pakistan.

Our results reveal that “**avoidance coping**” has a significant positive impact on job related stress, general stress and depersonalization, thus supporting hypothesis H8 (a) and partly H8 (b): its impact was only significant on one of the three dimensions of burnout. As expected, using avoidance as a coping tactic increases the chances of stress and burnout. Those who use avoidance coping compromise on quality and avoid contacts by maintaining a distance (depersonalization), and this leads the employees to respond to clients in dehumanized ways [Maslach et al. 2001]. Avoidance coping encompasses doubts particularly about the likelihood of managing stress in an adaptive way and has been termed as escape coping by Greenglass and Burke [2000]. These authors reported that escape coping was associated with higher levels of burnout. Research on coping also reveals that, where proactive coping does not exist, the alternatives are either avoidance or “passive” ways to reduce discomforting emotions [Lazarus & Folkman, 1984], but these avoidance and emotion-focused coping tactics result in greater psychological distress [Endler & Parker, 1990]. As opposed to hypotheses 9, Avoidance coping had no significant moderating impact on stress or burnout.

Globally, our results point out that Overload significantly increases general stress, job-related stress and one of the dimensions of burnout, emotional exhaustion. Three coping mechanisms have a direct impact on stress: as expected, avoidance or acceptance are the worst of the coping mechanisms as they increase stress or burnout instead of reducing it. On the other side, social support has a direct positive impact on general stress, but also a moderating impact to reduce the influence of Overload on stress.

One of the limitations of this study is the relatively small sample of faculty members in a single public sector university (n=80). This did not allow us to use more advanced quantitative tools like structural equation modeling. Because of the cross-sectional design, we were unable to ascertain the causal direction of the relationships. Future studies should be encouraged to use a longitudinal research design which would enable this type of analysis [Yip et al., 2008, p. 878]. For future research we suggest to develop comparative analyses based on the type of university (public and private sector) and the type of job. Intercultural differences between countries may also lead to different ways of reacting to stressors. Reactions to stressors also vary for non academic staff compared to academic staff. Even among academic staff, the stressors can vary between faculty members who are teaching high-tech courses with extensive use of lab/equipments, and teachers who are teaching relatively simple courses. Moreover similar type of research on teachers’ stress at lower level education institutes can be carried out to observe the differences in their potential stressors, levels of stress and burnout and the impact of coping strategies as moderators. It would also be interesting to study the relationships between faculty stress and student stress. Variables such as personality type, performance and turnover intentions could also be included in future studies.

## 5. Conclusion and recommendations

Results from our study reveal that the use of emotion-focused coping i.e. avoidance and acceptance is positively related to some dimensions of stress and burnout, but they do not moderate the relationship between overload and stress or burnout. The literature shows that when employees cannot reduce stress by using problem-focused coping actions, then tend to opt for avoidance actions [Lazarus & Folkman, 1984]. This type of emotion-focused coping strategy produces greater psychological distress instead of reducing distress [Endler & Parker, 1990]. We would therefore suggest that managers help their employees to use more problem-focused coping interventions rather than avoidance and acceptance. However it may vary from situation to situation; for example if the outcomes are uncontrollable as in case of expected downsizing at a university, they could be encouraged to use acceptance focused coping which can reduce burnout, but maybe only in the short term. In parallel, proactive measures could also be taken such as new job search, training, etc. In Pakistan for example, if the Higher Education Commission announces that each faculty member must have a doctoral degree by a certain deadline, in such scenario avoidance coping would be totally useless and only specific problem-focused coping can rescue the faculty members who decide to start a PhD program. Universities should thus provide full support to their faculty members by reducing their administrative workload, introducing career development interventions and providing resources such as research labs, equipments, research associates etc. In this way the non-PhD faculty can proactively plan their future/careers, manage their jobs and studies in parallel without feeling overburdened and with less vulnerability to stress.

Using personal and social support resources can also help in such a scenario. Thus it is suggested that academicians focus on future-oriented or proactive coping; in this way they can tackle the adverse effects of the unexpected future events and this can help them to handle stress and burnout [Folkman & Moskowitz, 2004].

Pertaining to work-life balance, it seems difficult to reduce this role overload, but social support from family, friends and partner for example can help overcome such work-life balance issues thus buffering stress and burnout [Love et al 2010].

Management could also introduce stress management interventions which can also be proactive or reactive. Proactive interventions, also termed as primary interventions, seek to identify and reduce sources of stress in order to increase the person-environment fit [Fogarty et al. 1999, Barkhuizen & Rothmann 2008]. Examples of such primary (or proactive) interventions are an equal distribution of workload rather than putting more load on hardworking employees only (which is a trend in many universities), hiring research associates to help the senior faculty who are also engaged in administrative tasks, conduct regular training seminars e.g. time management, appropriate recruitment and selection procedures to hire faculty members with aptitudes for teaching and research.

Reactive interventions, also termed as tertiary interventions by some authors, are focused on treatment of the existing situation. It can be done by providing treatment services to employees who are in trouble because of stress and burnout. The main efforts are then focused on treatment. Universities can hire the services of psychologists for such troubled workers before the negative effect of burnout are too serious and affect students and other stakeholders. The presence of social support networks can be very helpful in such scenarios.

Between the primary and tertiary approaches is the secondary approach, based on prevention, which includes common stress management techniques. Universities can for example educate their staff through seminars, discussion forums and many other sources explaining the positive outcomes related to proactive coping and the negative outcomes of avoidance coping. However, there is no one best solution: coping tactics should vary from time to time, depending upon the person and the severity and the type of stressors. With reference to role stress, faculty members can be encouraged to use interventions such as employment assistance programs or mental health counselors to help them learn the required skills to overcome their role stress and inter-role conflicts positively before these lead to burnout.



## References

- Aiken L.S., West S.G. (1991), *Multiple Regression: Testing and Interpreting Interactions*, Newbury Park, CA: SAGE Publications.
- Aspinwall L. G., Taylor S. E. (1997), "A stitch in time: self-regulation and proactive coping", *Psychol. Bull.*, vol. 121, p. 417-436
- Azeem S. M., Nazeer N. A. (2008), "A study of job burnout among university teachers", *Psychology Developing Societies*, vol. 20, n°1, p. 51-64
- Barkhuizen N., Rothmann S. (2008), "Occupational stress of academic staff in South African higher education institutions", *SA Journal of Psychology*, vol. 28, p. 321-336
- Best, J. W. (1994). *Research in education*. New Delhi, India: Prentice-Hall
- Biron C., Brun J. P., Ivers H. (2008), "Extent and sources of occupational stress in university staff", *Work* 3, p. 511-522
- Carver C. S., Scheier M. F., Weintraub J. K. (1989), "Assessing coping strategies: A theoretically based approach", *Journal of Personality and Social Psychology*, vol. 56, p. 267-283
- Cherniss C. (1980), *Staff Burnout - Job stress in the human services*, Beverly Hills. Sage Publications
- Christo B., Pienaar J. (2006), "South Africa correctional official occupational stress: The role of psychological strengths", *Journal of Criminal Justice*. vol. 34, n°1, p.73-84.
- Dick R.V., Wagner W. (2001), "Stress and strain in teaching: A structural equation approach", *British Journal of Educational Psychology*, vol. 71, p. 243-259
- Endler N. S., Parker J. D. (1990), "Multidimensional assessment of coping: A critical evaluation", *Journal of Personality and Social Psychology*, vol. 58, n° 5, p. 844-854
- Etzion D., Pines A. (1986), "Sex and culture in burnout and coping among human service professionals: A social psychological perspective", *Journal of Cross-Cultural Psychology*, vol. 17, p. 191-209
- Evers W., Tomic W., Browers A. (2005), "Does equity sensitivity moderate the relationship between self-efficacy beliefs and teacher burnout?", *Representative Research in Social Psychology*, vol. 28, p. 35-46
- Fogarty G., Machin A.M., Albion M., Sutherland L., Lalor G.L., Revitt, S. (1999), "Predicting occupational strain and job satisfaction: the role of stress, coping, and positive and negative affectivity", *Journal of Vocational Behavior*, vol. 54, p. 429-452
- Folkman S., Moskowitz J.T. (2004), "Coping: Pitfalls and Promise", *The Annual Review of Psychology*, vol.55, p. 745-774
- Folkman S., Lazarus R.S. (1980), "An analysis of coping in a middle aged community sample", *Journal of Health and Social Behavior*, vol. 21, 219-239
- Folkman S., Lazarus R.S. (1985), "If it changes, it must be a process: A study of emotion and coping during three stages of college examination", *Journal of Personality and Social Psychology*, vol. 48, p. 150-170
- Frese M. (1999), "Social support as a moderator of the relationship between work stressors and psychological dysfunctioning: a longitudinal study with objective measures", *Journal of Occupational Health Psychology*, vol. 4, p. 179-92
- Gillespie N.A., Walsh A., Winefield A. H. C., Dua J., Stough C. (2001), "Occupational stress in universities: staff perceptions of causes, consequences and moderators of stress", *Work & Stress*, vol. 15, n°1, p. 53-72
- Greenglass E. R., and Burke, R.J. (2000), "Hospital downsizing, individual resources and occupational stressors in nurses", *Anxiety, Stress, and Coping: An International Journal*, vol. 13, p. 371-390.
- Greenglass E.R. and Fiksenbaum L. (2009), "Proactive coping, positive affect and well being: Testing for mediation using path analysis", *European Psychologist*, vol. 14, n°1, p. 29-39

- Grigoryan A. A. (2008), "A new paradigm shift in managing occupational stress in organizations", *Розділ 4 Макроекономічні механізми, Механізм регулювання економіки*, n°3, Т. 2, p. 206-235
- Himle, D.P., Jayaratne, S. and Thyness, P. (1991), "Buffering effects of four social support types on burnout among social workers", *Social Work Research and Abstracts*, vol. 27, p. 22-27.
- Iwasaki Y., MacKay K., Mactavish J. (2005), "Gender based analysis of coping with stress among professional managers: Leisure coping and non leisure coping", *Journal of Leisure Research*, vol. 37, n°1, p. 1-28
- Johnson S., Cooper C., Cartwright S., Donald I., Taylor P., Millet C. (2005), "The Experience of Work-Related Stress across Occupations", *Journal of Managerial Psychology*, vol. 20, n°1/2, p. 178- 187
- Kahn R. L., Wolfe D. M., Quinn R. P., Snoek J. D., Rosenthal R. A. (1964), *Organizational stress: Studies in role conflict and ambiguity*, New York, John Wiley & Sons
- Kahn R.L., Antonucci T.C (1980), "Convoys over the life-course: Attachment, roles and social support" in P.B Baltes & O.G. Brim (eds.). *Life-span development and behavior* (p. 253-286). San Diego, CA: Academic Press
- Karimi R., Alipour F. (2011), "Reduce Job Stress in Organizations: Role of Locus of Control", *International Journal of Business and Social Science*, vol. 2, n°18, p. 232-236
- Lackritz J.R. (2004), "Exploring burnout among university faculty: incidence, performance, and demographic issues", *Teaching and Teacher Education*, vol. 20, p. 713-729
- Lazarus R. S. (1991). *Emotion and adaptation*. London: Oxford University Press.
- Lazarus R. S. (1993). From psychological stress to the emotions: A history of a changing outlook. *Annual Review of Psychology*, vol. 44, p. 1-21.
- Lazarus R.S. (1990), "Theory based stress measurement", *Psychological Inquiry*, vol. 1, n°1, p. 3-13
- Lazarus R.S., Folkman S. (1984), *Stress, appraisal and coping*: New York: Springer.
- Lee R., Ashforth B.E. (1996), "A meta-analytic examination of the correlates of the three dimensions of job burnout", *Journal of Applied Psychology*, vol. 81, p. 123-133
- Leiter M. P., Meechan K. A. (1986), "Role structure and burnout in the field of human services", *Journal of Applied Behavioural Science*, vol. 22, p. 47-52
- Leiter, M.P. (1991), "Coping patterns as predictors of burnout: The function of control and escapist coping patterns" *Journal of Organizational Behaviour*, vol. 12, p. 123-144.
- Love K.M., Tatman A.W., Chapman B.P. (2010), "Role stress, inter-role conflict and job satisfaction among university employees: the creation and test of a model", *Journal of Employment Counseling*, vol. 47, p. 30-37
- Maslach C., Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, vol. 2, p. 99-113
- Maslach C., Jackson, S. E. (1986). *Maslach Burnout Inventory Manual* (2nd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Maslach C., Leiter M.P. (1999). "Take this job and love it!" *Psychology Today*, vol. 32, n°5, p. 50-53
- Maslach C., Schaufeli W.B., Leiter M.P. (2001), "Job Burnout", *Annual Review of Psychology*, vol. 52, p. 397-422
- Matheny K. B., Aycock D. W., Pugh J. L., Curlette W.L., Silva Canella K. A. (1986), "Stress Coping, A qualitative and Quantitative Synthesis with Implications for Treatment", *The Counseling Psychologist*, vol. 14, p. 499-549
- Mughal, N. A, & Manzoor. (1999). *Issues in higher education: Problems and prospects of the Pakistani university*. Jamshoro, Pakistan: University of Sindh.
- Ongori H. (2007), "A review of the literature on employee turnover", *African Journal of Business Management*, vol.1, n°3, p. 49-54
- Ongori H., Agolla J. E. (2008), "Occupational stress in organizations and its effects on organizational performance", *Journal of Management Research*, vol. 8, n°1, p. 123-135

- Ozdemir S. (2006), "Burnout levels of teachers of students with AD/HD in Turkey: comparison with teachers of non-AD/HD students", *Education and Treatment of Children*, vol. 29, n°4, p. 693-709
- Pareek U. (2002), *Training Instruments in HRD and OD*, 2nd ed., New Delhi, Tata McGraw-Hill, Publishing Company Limited
- Park C.L., Cohen L.H., Murch R.L. (1996), "Assessment and Prediction of Stress-Related Growth", *Journal of Personality* vol. 64, n°1, p.71-105
- Rajarajeswari, S. (2010), "Role **stress** among the aided and self financing college **teachers**: A discriminant analysis", *Global Management Review*, vol. 4, n° 4, p. 73-86
- Rao, V. K. (2003). *Higher education*. New Delhi, India: A. P. H. Public Corporation.
- Rees C. J., Redfern D. (2000), "Recognizing the Perceived Causes of Stress: A Training and Development Perspective", *Journal of Industrial and Commercial Training*, vol. 32, n°4, p. 120-127
- Röbken. H. (2009), "Career Paths of German Business Administration Academics\*\* Zeitschrift für Personalforschung, vol. 23, n°3, p. 219-236
- Rowe M.M. (2000), "Skills training in the long-term management of stress and occupational burnout", *Current Psychology: Developmental, Learning, Personality, Social*, vol. 19, p. 215-228
- Salami S.O. (2011), "Job stress and burnout among lecturers: Personality and Social Support as moderators", *Asian Social Science*, vol. 7, n°5, p. 110-121
- Schaefer J., Moos R. (1992), "Life crises and personal growth. In B. Carpenter (Ed.)", *Personal coping: Theory, research, and application*, p. 149-170. Westport, CT: Praeger
- Schaufeli W.B., Enzmann D. (1998), *The burnout companion to study and practice: A critical analysis*. London: Taylor & Francis.
- Schaufeli W.B., Greenglass E.R. (2001), "Introduction to special issue on burnout and health", *Psychology and Health*, , vol. 16, p. 501-510
- Selye H. (1976). *The stress of life*, New York, McGraw-Hill
- Srivastav, A. K. (2007). "Stress in organizational roles - individual and organizational implications", *Icfaian Journal of Management Research*, vol.6, n° 12, 64-74.
- Taris T. W., Schreurs P. J. G., Van Iersal-Van Silfhout I. J. (2001), "Job stress, job strain, and psychological withdrawal among Dutch university staff: Towards a dual-process model for the effects of occupational stress", *Work and Stress*, vol. 15, p. 283–296
- Terluin, B., Van Rhenen, W., Schaufeli, W.B., & de Haan, M. (2004), "The Four-Dimensional Symptom Questionnaire (4DSQ): Measuring distress in a working population". *Work and Stress*, vol. 18, 187–207.
- Togia A. (2005), "Measurement of burnout and the influence of background characteristics in Greek academic librarians", *Library Management*, vol. 26, n°3, p. 130-138
- Toker B. (2011), "Burnout among university academicians: An empirical study on the universities of Turkey", *Doğuş Üniversitesi Dergisi*, vol. 12, n°1, p. 114-127
- Topper E. F. (2007), "Stress in the Library", *Journal of New Library*, 108(11/12): 561-564
- Updegraff J.A., Taylor S.E. (2000), From vulnerability to growth: Positive and negative effects of stressful life events. In J. Harvey & E. Miller (Eds.) *Loss and Trauma: General and Close Relationship Perspectives* (pp. 3-28).
- Van Horn J.E., Schaufeli W.B., Greenglass E.S., Burke R.J. (1997), "A Canadian-Dutch Comparison of Teachers Burnout", *Psychological Reports*, vol. 81, n° 2, p. 371-382
- Vermunt R., Steensma H. (2005), "How can Justice be Used to Manage Stress in Organizations, in Greenberg, J. and Colquitt, J. A. (Eds.), *Handbook of Organizational Justice*, pp. 383-410, Erlbaum, Mahwah, NJ

Winefield A. H., Gillespie N., Stough C., Dua J., Hapuarachchi J., Boyd C. (2003), "Occupational stress in Australian university staff: Results from a national survey", *International Journal of Stress Management*, vol. 10, p. 51-63

Yerkes R.M., Dodson J.D. (1908), "The relation of strength of stimulus to rapidity of habit-formation", *Journal of Comparative Neurology and Psychology*, vol. 18, p. 459-482

Yip B., Rowlinson S., Siu O.L. (2008), "Coping Strategies as moderators in the relationship between role overload and burnout", *Construction Management and Economics*, vol.26, p. 869-880