

## **The Mediating Role of Depression, Anxiety and Stress between Job Strain and Turnover Intentions among Male and Female Teachers**

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Positive associations between job strain and turnover among teachers have been made from time to time. The current study was intended to investigate the mediating role of depression, anxiety and stress between job strain and turnover intentions among male and female teachers. The same mediation was thought as a knowledge gap for investigating teachers' job strain and turnover. The inquiry included 131 conveniently selected male and female teachers from public and private educational institutions of Pakistan. The instruments for the study included Depression Anxiety and Stress Scale (Lovibond & Lovibond, 1995), Turnover Intention Scale of The Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins & Klesh, 1979), The Job Strain Scale (Parker & DeCotiis, 1983) and a Demographic Information Questionnaire. The study assumed the mediating role of depression, anxiety and stress as important determinants for turnover intentions among teachers with job strain. The findings proved this assumption to be in the positive direction as the results revealed the mediating effects of depression, anxiety and stress between job strain and turnover intentions. Additionally, male teachers were found to be more inclined towards turnover due to job strain as compared with female teachers. Moreover, job stress had more moderating effect on the levels of stress in female teachers and on the levels of depression and anxiety in male teachers. The study suggested that teachers, especially the newly hired, should be screened for possible mental health related problems and their problems should be addressed in the greater interest of education sector.

**Key words:** Teachers, Depression, Anxiety, Stress, Job strain, Turnover

Teaching, a profession that creates all other professions, has been regarded as the most significant and the noblest social service since centuries. Teachers are expected to produce such intellectuals who could contribute significantly and effectively within a society. The profession of teaching has been considered a very difficult and demanding task whereas smaller mistakes may produce greater damages. Education, after the rapid advancements in technology, is now being considered as an industry. Teachers, therefore, are generally regarded as paid workers like any other industry. Students, on the other hand, are considered as customers and comparatively are of a higher worth than teachers, especially in private sector institutes. Consequently, the role of mentoring and character building of pupils has been practically taken out from the job description of a teacher. Teacher, serving just as a facilitator to assist students in memorizing certain topics, has significantly lost his scholastic worth. The same lower levels of self esteem and lesser self recognition along with other job related problems put teachers in a state of stress, anxiety and depression.

Stress, in general, has become an unavoidable part of our daily lives. The term, in its core definitions, has certain explanatory ambiguities. Researchers have different viewpoints in defining and explaining stress. Some consider it a cause and some suggest it to be an effect (Ganster & Schaubroeck, 1991; Jex, Beehr, & Roberts, 1992; Karasek, 1979). The work strain or demand-control model of Karasek (1979) has been a focus of various researchers in defining job stress (e.g. Ganster & Schaubroeck, 1991; Vegchel, Jonge, Landsbergis, 2005; Liu, Spector & Jex, 2005; Totterdell, Wood & Wall, 2006; Fox & Spector, 2006). The model elaborated three core elements of job stress including job demands (the independent variable), job decision latitude (the independent and moderating variable) and psychological strain (the dependent variable). Karasek further suggested that high job demands with low decision making authority would lead to psychological strain. Lazarus (1991), another well cited researcher within the same perspective, emphasized on human emotions. Stress, according to him, is a transactional process between an individual and his environment. Individuals may perceive stressors differently based on their emotions and priorities. Jex and colleagues (1992) did a survey to explore how job stress was taken into account by various researchers and concluded three possibly applied ways i.e. (1) as a stimulus or a cause, (2) as

a response, and (3) as a stimulus response process. According to Jax and colleagues (1992), most researchers preferred to consider job stress as a stimulus response process. Ellis (2006) considered job stress as a response which has negative effects to an individual's wellbeing. Janssen (2004) termed stress as response similar to anxiety or burnout.

Job strain, occupational stress, work stress or job stress; with whatever title, has been regarded as a highly significant workplace concern by plenty of researchers (e.g. Karasek, 1979; Lazarus, 1991; Ganster & Schaubroeck, 1991; Jamal & Baba, 1992; Dewe, 1992, 2003; Scheck, Kinicki, & Davy, 1995; Viswesvaran, Sanchez, & Fisher, 1999; Dormann & Zapf, 2002; Judge & Colquitt, 2004; Glazer & Beehr, 2005; Fox & Spector, 2006; etc.). Stressors at job may vary according to the nature of work and organization. Stress at workplace could be an outcome of several possible sources e.g. work overload, ambiguities in job roles, incompetent supervisors, lack of recognition, downsizing, technological difficulties and violence (DeFrank & Ivancevich, 1998). Parker and DeCotiis (1983) considered relationships as stressors. They also regarded work itself as a stressor. Ormond, Keown-Gerrard and Kline (2003) concluded that high workload, time wasted on meetings, lack of supervisor interactions, ineffective communication, lack of feedback, lack of recognition, role ambiguity, lack of training, dissent among employees, and lack of morale were some of the common stressors in the workplace.

The dissatisfaction with job related assignments and environment may lead teachers to shift from one institution to another (teacher migration) or to quit teaching (attrition). Teacher turnover, since the last decade or so, has become a major concern in the field of education and is mostly indicated through the demand for teacher replacement in education sector (Kozleski, Mainzer, Deshler, & Coleman, 2000; Johnson, Berg, & Donaldson, 2005). In United States, the National Commission on Teaching and America's Future (2003) considered teacher retention as a national crisis. The profession of teaching has been characterized as a Revolving Door by some researchers (e.g., Ingersoll, 2003; Hanushek, Kain, & Rivkin, 2004) emphasizing the ratio of turnover among teachers. Turnover among teachers has been widely studied (e.g., Murnane, 1981, 1987; Chapman & Hutcheson, 1982; Schlecty & Vance, 1981, 1983; Chapman & Green, 1986; Rumberger 1987; Grissmer & Kirby, 1987, 1992, 1997; Haggstrom, Darling-Hammond, & Grissmer, 1988; Heyns, 1988; Murnane, Singer, & Willett, 1988; Weiss & Boyd, 1990; Marso & Pigge, 1991; Murnane, Singer, Willett, Kemple, & Olsen, 1991; Hafner & Owings, 1991; Bobbitt, Leich, Whitener, & Lynch, 1994; Miech & Elder, 1996) and researchers have tried to find out the factors for which turnover occurs in teaching profession. Within the profession, the teachers of special education, mathematics and science have been found to be more prone to turnover as compared with teachers of other disciplines (Rumberger, 1987; Murnane et al., 1991; Grissmer & Kirby, 1992; Boe, Bobbitt, & Cook, 1997). The age of teachers and the level of their career, in earlier studies (e.g., Grissmer & Kirby, 1987, 1992, 1997; Hafner & Owings, 1991; Bobbitt et al., 1994; Boe et al., 1998), was also found to be positively correlated with turnover. Teachers at their mid-career were found to be lesser prone to turnover as compared with teachers at beginning or teachers near retirement.

The prolonged job strain may lead teachers to certain critical mental disorders including depression, anxiety and stress. Depression, commonly considered as an umbrella term for Depressive Disorders, is featured with several symptoms that seriously damage mental health. These symptoms include dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest, anhedonia, and inertia (Lovibond & Lovibond, 1995). Depressive disorders are categorized with further labels e.g. Disruptive Mood Dysregulation Disorder, Major Depressive Disorder (Single and Recurrent Episodes), Persistent Depressive Disorder (Dysthymia), Premenstrual Dysphoric Disorder, Substance/Medication-Induced Depressive Disorder, Depressive Disorder Due to Another Medical Condition, Other Specified Depressive Disorder, and Unspecified Depressive Disorder (American Psychiatric Association, 2014). The term anxiety, like depression, is also an umbrella term referring to Separation Anxiety Disorder, Selective Mutism, Specific Phobia, Social Anxiety Disorder (Social Phobia), Panic Disorder, Panic Attack (Specifier), Agoraphobia, Generalized Anxiety Disorder, Substance/Medication-Induced Anxiety Disorder, Anxiety Disorder Due to Another Medical Condition, Other Specified Anxiety Disorder, and Unspecified Anxiety Disorder (American Psychiatric Association, 2014). The major features of anxiety include autonomic arousal, skeletal musculature effects and situational anxiety (Lovibond & Lovibond, 1995). Depression and anxiety along with stress are the most commonly diagnosed illnesses in Psychology (Brown, Chorpita, Korotitsch & Barlow, 1997; Davies, Norman, Cortese & Malla, 1995; Farmer, 1998; Ollendick & Yule, 1990). Several studies have associated these syndromes to numerous negative outcomes in the workplace, such as decreased performance and satisfaction (Cavanaugh, Boswell, Roehling & Boudreau, 2000; Greenberg, 1999; Poole, 1993; Seaward, 1999). The outcomes of depression, anxiety and stress are also associated with negative outcomes in other aspects of life, including general satisfaction (Kessler et al., 1994; Youngren & Lewinsohn, 1980), quality of life (Norvell, Hills & Murrin, 1993), and social interactions (Alden & Phillips, 1990; Davies et al., 1995).

A part from the rich literature available on job strain among teachers; the earlier studies have not touched the mediating role of depression, anxiety and stress. The rationale of the current study, therefore, was to explore this uncovered area. The same has valued the current study, especially in a Pakistani perspective, and has distinguishably contributed to the existing body of scientific knowledge on the understudied subject. The mediating role of depression, anxiety and stress was assumed to be an important factor for turnover among teachers. A teacher, in other words, would

not be heavily inclined towards turnover due to job strain alone; hence the intensity of job strain would have been increased to such intensified levels where the teacher could be diagnosed with depression, anxiety or stress. This mediation, with reference to the implications of the current study, could alarm the education sector particularly and the society in general on the critical mental health related risks to teachers caused by job dissatisfaction.

## Method

### Participants

The research participants were 131 conveniently selected teachers (59 males and 72 females) belonging to different private and public sector educational institutions (including higher secondary schools, colleges and universities) of Rawalpindi and Islamabad, Pakistan.

### Instruments

#### Depression, Anxiety and Stress Scale (Lovibond & Lovibond, 1995)

The Depression, Anxiety and Stress Scale (DASS) comprises of 42 items. It is a self-report inventory that deals with three different but relevant factors i.e. depression, anxiety, and stress. Each of the three DASS scales contains 14 items, divided into subscales of 2-5 items with similar content. Reliability of the three scales is considered appropriate and test-retest reliability is similarly considered adequate with .71 for depression, .79 for anxiety and .81 for stress (Brown et al., 1997).

#### Turnover Intention Scale of The Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins & Klesh, 1979)

Turnover intention was measured using Turnover Intention Scale developed by Cammann, Fichman, Jenkins and Klesh (1979). It is a 3 item inventory within The Michigan Organizational Assessment Questionnaire. The Scale has an internal consistency coefficient alpha of .78.

#### The Job Strain Scale (Parker & DeCotiis, 1983)

Job strain was measured with Parker and DeCotiis' scale which intends to measure employees' perceived work-related psychological stress (e.g., anxiety, tension). The scale includes 13 items. Each item was rated on a 5-point Likert-type scale with anchors 1 (strongly disagree) and 5 (strongly agree). Cronbach's alpha for this scale was 0.87.

#### Demographic Information Questionnaire

A demographic information questionnaire was also used which intended to gather information on the respondents' occupation and gender.

### Procedure

The participants of the study were conveniently selected and approached by the researcher in different educational institutions of Rawalpindi and Islamabad, Pakistan. The participants were informed about the purpose of the study and their consent to participate was obtained. The participants responded to the instrument in individual settings and the issues of confidentiality and secrecy were also made clear to them. The scores obtained were analyzed using the Statistical Package for Social Sciences (SPSS).

## Results

The current study was aimed at investigating the mediating role of depression, anxiety and stress between job strain and turnover intentions among male and female teachers. To testify the reliability and construct validity of the instruments applied and to see the relationship between the understudied variables, following analyses were made:

**Table 1**

*Cronbach's Alpha Reliability and Correlation Matrix between anxiety, depression, stress, job strain, and turnover intentions among teachers (N= 131)*

Variables	M	SD	A	1	2	3	4	5	6
1.DASS	170.60	485.48	.96	-	.96**	.98**	.97**	.53**	.52**
2.Anxiety	52.01	164.89	.92		-	.91**	.89**	.51**	.48**
3.Depression	59.18	169.84	.90			-	.94**	.51**	.50**
4.Stress	59.40	165.54	.90				-	.53**	.53**
5.Job Strain	128.36	300.98	.98					-	.44**
6.Turnover intentions	23.74	60.86	.97						-

Note: DASS= Depression, anxiety and stress scale, \*p ≤ 0.05, \*\*p ≤ 0.01

According to table 1, the instruments used in the study were found highly reliable as projected by their alpha values ( $\alpha = >.90$  for all the instruments). With reference to the construct validity of DASS, the results shown in table 1 revealed that DASS was positively correlated with anxiety ( $r = .96, p < .001$ ), depression ( $r = .98, p < .001$ ) and stress ( $r = .97, p < .001$ ). The results also revealed that Depression, Anxiety and Stress were positively correlated with job strain ( $r = .53, p < .001$ ) & employee turnover ( $r = .52, p < .001$ ) on highly significant levels. The results also indicated that anxiety was positively correlated with depression ( $r = .91, p < .001$ ), stress ( $r = .89, p < .001$ ), job stress ( $r = .51, p < .001$ ) and turn over ( $r = .48, p < .001$ ). The results also revealed that depression was positively correlated with stress ( $r = .94, p < .001$ ), job stress ( $r = .51, p < .001$ ) and turn over ( $r = .50, p < .001$ ). The results further revealed that stress was positively correlated with job strain ( $r = .53, p < .001$ ) and turn over ( $r = .53, p < .001$ ). The results also revealed that job strain was positively correlated with turnover ( $r = .44, p < .001$ ).

**Table 2**

*The mediating role of depression, anxiety and stress between job strain and turnover intentions among male and female teachers*

Variables	Depression			Anxiety			Stress			Turnover Intentions		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
<b>Female and male teachers' combined data</b>												
<b>Step 1</b>												
Job Strain	.29	.04	.505***	.28	.04	.51***	.30	.04	.54***	.090	.016	.45***
<b>Step 2</b>												
Depression										.181	.027	.51***
Anxiety										.178	.028	.48***
Stress										.197	.027	.54***
<b>Step 3</b>												
Job Strain										.052	.017	.255**
Depression										.135	.031	.377***
Job Strain										.055	.018	.270**
Anxiety										.127	.032	.344***
Job Strain										.045	.017	.221**
Stress										.153	.012	.417**
<b>Female teachers</b>												
Job Strain	.33	.08	.45***	.37	.08	.48***	.27	.04	.66***	.02	.02	.119***
Depression										.12	.03	.47***
Anxiety										.22	.10	.36*
Stress										.15	.03	.57***
<b>Male teachers</b>												
Job Strain	.26	.04	.65***	.23**	.04	.65***	.34	.08	.47***	.05	.03	.231***
Depression										.23	.08	.43***
Anxiety										.12	.03	.49***
Stress										.19	.08	.37**

Table 2 reveals that though the job strain alone does have an effect on turnover intentions ( $\beta=.45, p=.000$ ), depression ( $\beta=.505, p=.000$ ), anxiety ( $\beta=.51, p=.000$ ) and stress ( $\beta=.54, p=.000$ ); however this effect has increased by the mediating role of depression ( $\Delta R^2.106$ ), anxiety ( $\Delta R^2.090$ ) and stress ( $\Delta R^2.123$ ). The table further, projects the moderating role of gender. Male teachers have higher turnover intentions ( $\beta=.231, p=.000$ ) as compared with female teachers ( $\beta=.119, p=.000$ ). Moreover, job strain has more effect on stress in female teachers ( $\beta=.47, p=.000$ ) as compared with male teachers ( $\beta=.66, p=.000$ ) but in the cases of depression and anxiety, job stress has more effect on male teachers ( $\beta=.65, p=.000$ ;  $\beta=.65, p=.000$ ) as compared to female teachers ( $\beta=.45, p=.000$ ;  $\beta=.48, p=.000$ ) respectively.

**Discussion**

The current study was carried out to investigate the mediating role of depression, anxiety and stress between job strain and turnover intentions among male and female teachers. The instruments applied were found to be highly reliable and valid for the current study. The results revealed that depression, anxiety and stress have significant positive relationships among themselves along with significant positive relationships with job strain and turnover intentions among teachers (table 1). The assumptions of the current study were proven to be in positive directions as the results revealed the mediating effects of depression, anxiety and stress between job strain and turnover intentions (table 2).

The study has found that job strain in teachers affects their intentions of turnover. This has already been reported by several earlier studies in which different reasons for job strain are associated with turnover among employees including teachers. The reasons of job strain among the teachers have also been widely studied. Ko Yiu-chung, Chan Kwok-bun and Gina Lai (2007), for example, have reported several factors that can create job strain among teachers. These factors include work overload e.g. having too much to do, time pressures and deadlines to meet, no time for marking, too much administrative work/meetings/coordinating work, time spent in the institute too long; difficult job responsibility and self-expectations e.g. to work hard to achieve self-expectations, to produce good results, trying to uphold values and standards, coping with rapid changes in the institute, fear of making mistakes, too much thinking, to upgrade qualification, unclear job expectations, dealing with misbehaving or poorly motivated students; conflicting or insufficient support from superiors e.g. unfair assessment from superiors, lack of support from superiors, discrimination and favoritism, contradiction of beliefs with superiors, no authority to carry out job duties; unnecessary tasks and red tape e.g. to do work outside competence, to do an unnecessary task, decisions made about teachers without involving them, work delayed by unnecessary red tape, lack of consensus on minimum standards; insufficient support from colleagues e.g. working with uncooperative or incompetent colleagues/subordinates, relationship problems with colleagues/subordinates, insufficient resources and equipment to get work done; work interfering with family and personal life e.g. advancing a career at the expense of home/personal life, work demands affect home/personal life, life is too centered on work, inadequate time for professional/self-development; and low evaluation of teachers from society e.g. feeling of being underpaid, society does not think highly of teaching profession, etc. With reference to Pakistan, Aisha and Ramazan (2013) considered the issues of time management as the leading causes of stress among teachers. Anwar, Rosman and Kamran (2014) conducted a study on university teachers in Pakistan and identified nine factors which led to teacher stress. These included social status of teachers, work overload, demanding students and parents, job insecurity, ever changing educational policies, problems of performance appraisal, absence of training, and resource constraints. Rubina, Sadaf and Masood (2011) declared that school system, gender, job experience, number of family members and number of students were significant predictors of job stress in teachers. Nosheena (2015) concluded that major job stressors for teachers included the absence of medical facilities at the campus; non-availability of prescribed books, computer, and internet facilities; students' poor academic background; absence of adequate office facilities; excessive official paperwork; lack of opportunities for professional development; lack of proficiency in English; little time to relax during the day; and overcrowded classes.

The existing scientific literature is also quite rich to prove the prevalence of depression (Kyriacou 1987; Greenglass et al. 1990; Punch and Tuettemann 1991; Schonfeld 1992; Kyriacou 2001), anxiety (Hicks, 1933; Peck, 1933; Randall, 1951; Powell & Ferraro, 1960; Carter, 1970; Singh, 1972; etc.) and stress (Borg, 1990; Farber, 1991; Byrne, 1999; Guglielmi & Tatrow, 1998; Pithers & Soden, 1998; Vandenberghe & Huberman, 1999) in teachers. Shazia Zamir (2013), in her study on Pakistani high school teachers, found a significantly negative correlation between occupational stress and job satisfaction. Another study on Pakistani high school teachers (Alamzeb, Mansoor, Nauman & Fayyaz, 2010) found that female teachers and teachers in their mid-career develop more occupational stress as compared with their counterparts. They also tried to sort out the reasons of stress in teachers and concluded that inconsistency in governmental policies and instability in job lead to stress in teachers. Afia & Usman (2013) compared stress levels between teachers of governmental and private schools in Peshawar, Pakistan and found no significant difference in this regard. They also concluded that female teachers had more stress as compared with male teachers. Another study conducted in Pakistan (Qayyum, Mahnaz, Nadia & Raeesa, 2014) reported that teachers who were happier performed better as compared with teachers who were not happy but successful. Shahnaz and Sadia (2014) conducted a study in Bakhar, Pakistan and reported that female teachers had greater stress as compared with male teachers. Fozia (2012) reported that public school teachers had more job stress as compared with private school teachers.

The novel part of the current study, however, was its focus on the mediating effects of depression, anxiety and stress between job strain and turnover intentions. The study, in this regard, established the mediating effects and it was proved that depression, anxiety and stress increase turnover intentions among teachers. Job strain, in other words, if accompanied by depression, anxiety or stress puts more effects on teachers to think of job change. With relation to the gender of teachers, the study has found that male teachers develop more intentions for turnover as compared with female teachers. Furthermore, job stress puts more moderating effect on the levels of stress in female teachers; and on the levels of depression and anxiety in male teachers.

The findings of the current study lead to another very interesting assumption that the teachers who would leave their current jobs due to job strain, would might have developed significant mental problems e.g. depression, anxiety and stress. As their new employers would usually not assess them for their mental problems on their hiring, the teachers may carry the negative effects of their mental problems to their new environment and this would decrease their performance as teachers. It is, therefore, suggested to the employers of educational institutions to measure the mental health of their newly hired teachers so that they could be provided with necessary psychological treatment before they carry on with their

educational activities. The same is being suggested to the employers of other organizations and industries as the same assumption could also be applicable in their case as well.

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