

DETERMINANTS OF JOB STRESS AMONG FACULTY MEMBERS IN UNIVERSITIES OF PAKISTAN

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Abstract: *Universities are the strategic assets of Pakistan, however, in the recent years, universities are facing challenges, and resultantly academicians are experiencing job stress. Moreover, academicians need solution for coping with their job stress. Keeping this in view, the determinants of job stress in academic of Pakistan were examined through a cross sectional design, and data was collected via self-administered online questionnaire from a sample of 1091 faculty members. Socio-demographic data was analyzed by descriptive statistics, whereas Hierarchal Multiple Regression Analysis was run to know direct and moderating effects. Results show that job stress was positively associated with psychological strain, whereas social support and self-efficacy had significantly moderated this association. Such findings are in-concurrence with the existing literature. This study has yielded important implications and recommendations. It has been concluded that job stress is a recognized workplace issue in academia of Pakistan, therefore it requires proper management.*

Keywords: *Job Stress, Psychological Strain, Social Support, Self-Efficacy, Faculty Members, Universities*

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Introduction

Past literature on job stress shows that universities were considered as stress free places, since the academic staff were enjoying freedom in the activities that they were performing within their academic sphere (Winefield et al., 2003). However, in the recent times, the universities around the world have experienced a transition, and a paradigm shift (Belitski et al., 2019). Such shift has been experienced due to the modern trends of the 21st century, which had brought with itself new performance standards (Mouritzen & Opstrup, 2020b). These new performance standards focused more on quality and innovation, which has pushed the academic staff to work hard and beyond their conventional teaching styles (Mouritzen & Opstrup, 2020a). Such situation was perceived by the academic staff as highly stressful, since the academic staff were put under load of carrying out not only the teaching related tasks but also tasks related to research and development (Daumiller & Dresel, 2020). The under stressed faculty members experience symptoms of depression, and anxiety and some of faculty member even experience social dysfunction, which ultimately negatively affected their work performance (Ng et al., 2019). Therefore, the existing literature documents many studies, e.g., Johnson et al (2018), Johnson et al., (2019), and Han et al., (2020) which have strongly recommended that the future researchers should examine the linkages between job stress and symptoms of depression, and anxiety in the academia, generally around the world plus particularly in Pakistan.

Researchers in the past found certain elements, which were supposed to lessen the negative and undermining effects of the job stressors. Such factors were termed as resources. Later on the

resources were defined as those factors, which have value or they can act as a way to achieve any desired objectives, for example, money or status (Hobfoll & Freedy, 2017). For these reasons, researchers are keen to know the positive effects of different resources among teachers, since teaching is now considered to be high stressful occupation (Barton & Dexter, 2020). In this regard Barton and Dexter (2020), Fiorilli et al (2017) and Richards et al (2016) have found that resources like, e.g., social support, self-efficacy and resilience had successfully moderated the negative effects of job stress. That is why it is very significant to scientifically examine the positive effects of both personal resources and job related resources, especially among those faculty members, which are experiencing the symptoms of stress, since such research will be very helpful in creating awareness among academic staff about the different job stressors and strains. Furthermore, such findings will also help academic staff to learn about optimal allocation and utilization of the available resources at their respective universities. However, if we look at the existing literature, then there is a scarcity of latest research that has examined the significant role of different type of resources in universities of Pakistan, especially in the universities located in southern Khyber Pakhtunkhwa province of Pakistan, thus, indicating serious research gap. Keeping in view the dire importance of research on the issue of job stress and its interaction with psychological strain and resources in universities of Pakistan, this study has following broader aims:

1. To know the effects of job related stress on the psychological strain of the faculty members that are working in the universities of Pakistan.

2. To determine the moderating or buffering effects of the two important resources, i.e., social support, and self-efficacy on the job stress among faculty member working in the universities of Pakistan.

Literature Review, Theoretical Background and Hypotheses Development

The concept of stress is derived from the Latin word "*stringere*", which means "to bind it tight". Or it is thought that there was a French word "*destresse*" which mean "to place under oppression (Humphrey, 2002). Some things, stress has origin in pure sciences like, chemistry and physics. Whereas the 17th century definitions of stress is "hardship or toughness" were replaced by the 18th and 19th centuries words of "force, and strain" (Hinkle, 1973). Later, Walter Cannon applied the conception of "stress" to humans through expanding the Bernard's conception of "homeostasis". In this way Cannon introduced the concept of "Fight or Flight" (Taylor et al., 2000; Haneef, et al., 2014). In 19th and early 20th century, the industrial revolution along with the scientific management era had reached its top, by resulting in an extreme proliferation of trade and business. Also new and modern work techniques were introduced (Merkle & Riley, 1980). With new methods of work, the technical complexity also increased, and employees started feeling themselves under pressure. This was the start of emergence of job stress in the workplace and from here scientific study of job stress was also started (Pandey & Pestonjee, 2013). And it was between 1950s and 1970s, when the education sector was thought to be one of the speediest growing sectors in the world. However, this sector expanded up, the cut throat competition also

soared with implementation of new and tough quality standards (Travers et al., 1996). This is how, job stress emerged in the education sector throughout the world.

There are different theoretical models that explains the concept of job stress and its related other concepts. Like for example, the early model of "Job Demands Control", which was introduced by Robert Karasek in 1970s. The "Job Demands Control Model" of job stress stated that "stress is resulted from the interaction among the existing environmental demands and the individual control of the employees, in such a way that if the environmental demands exceed the individual control, then employees feel themselves under strain (Karasek Jr, 1979). Johnson and Ellen in the year 1988 added the concept of "social support" in to the "Job Demands Control Model" of job stress, which resulted in creation of "Job Demands Control Support Model" of job stress (Johnson & Hall, 1988; Alvi, et al., 2015).

Both the "Job Demands Control " and "Job Demands Control" models of job stress were criticized for being so simple and for their inability to truly comprehend the concept of job stress, led to the creation of famous "Job Demands-Resources" model of job stress by Demerouti and Bakker in year 2001. According to the "Job Demands-Resources" model of job stress, every job has certain unique risk factors, these risk factors can be classified as " job stressors" and " job resources" (Demerouti et al., 2001). The "job stressors" have negative effects on the organizational outcomes and "job resources" have positive effects on the organizational outcomes. In this way the health impairment and health deterioration processes are started within the organizations (Bakker &

Demerouti, 2007). Later Xanthopoulou et al (2007) included the personal resources factor into the “Job Demands-Resources” model and in this way both the job as well as personal resources were studied for their positive effects on the organizational outcomes. For the current study, the “Job Demands-Resources” has been selected as theoretical model, since this model not only helps in knowing the association between job stressors and psychological strain but also helps in knowing the positive effects of both the job as well as personal resources.

The link between job stress and psychological strain is unique and researchers are particularly interested to know how job stress can cause psychological strain (Lang et al., 2007; Alvi, et al., 2020). In this regard different researches have examined this relationship, for e.g., Boyd et al (2011) had longitudinally (period of three years) examined the link between job demands and psychological strain among the faculty members in major Australian universities. They also examined the reverse relationship between job demands and psychological strain. They found that once the job demands increase, then the faculty members get exhausted. This exhaustion leads to the feeling of depression and anxiety, as a sign of psychological breakdown. They found that with passage of time the job demands can create psychological strain. Similarly in another study Salmela-Aro and Upadyaya (2014) conducted an extensive four-wave longitudinal study on the teachers by testing the famous Job Demands-Resources model. They found that job stressors had a positive relationship with the burnout feeling among the teachers. They found that teachers with passage of time could not bear the negative effects of job stressors and started developing feelings of disengagement, exhaustion and fatigue.

The job stress has been also studied in Asian countries like Pakistan. For example, Sarwar et al (2010) found that teachers in Pakistan suffer from job stressors like students’ misbehavior, too much class load, over crowdedness in class and difficulties in students’ counselling. Such stressors had created psychological feelings of depression and anxiety among teachers. Similarly in another study by Malik et al (2017) it was found that Pakistani teachers suffer from stressors like less job promotion chances, workplace bullying, low social support and bad working conditions. These stressors were found positively associated with the psychological symptoms of exhaustion, insomnia, depression and irritation. Other researchers who have examined the link between job stress and strain in Pakistan include Yusoff et al (2013), Khan et al (2017), Anjum et al (2019) and Syed et al (2020). All these studies have found one or in another way a positive link between job stress and psychological strain. Therefore, this study also hypothesized that “*H₁: There will be a positive linkage between job stress and psychological strain among the academic staff in the universities of Pakistan*”

As earlier discussed, that academic staff are in continuous struggle to find ways for coping with the negative effects of job stress and resultant psychological strain. In this regard, found certain elements, which were supposed to lessen the negative and undermining effects of the job stressors. Such factors were termed as resources. Resources value in their own, or they can act as a method to achieve anything (Hobfoll & Freedy, 2017). For these reasons, researchers are highly interested in knowing the effects of resources on the job stress and psychological strain the teaching occupation, since teaching is now considered to be high

stressful occupation (Barton & Dexter, 2020). In this regard Barton and Dexter (2020), Fiorilli et al (2017) and Richards et al (2016) have found that resources like, e.g., social support, resilience and self-efficacy had successfully moderated the negative effects of job stress. Other researchers who have studied the moderating role of resources, particularly in Pakistan include, (Moksnes et al (2019), Johnson et al (2018), Johnson et al (2019), Adil & Kamal (2019) and (Haq, 2018). All these researchers found that resources can moderate the negative effects of job stress in academia. Therefore, this study also hypothesized that “*H₂: The moderating variables of social support, and self-efficacy will buffer the job stress-psychological strain relationship in the universities of Pakistan*”.

Following a thorough review of the models that were traditionally developed and those which have been developed in the modern era, the research framework of the present study has been formulated, as clear from the Figure 01. The framework has three sections. Beginning from right to left, the first section is about job

stressors, as independent variable. Then the second section is about psychological strain, as dependent variable. Finally, the third section in bottom is about resources, as moderating variable.

Research Methodology

Research Design: This study has utilized a quantitative a cross sectional design. Researchers prefers the cross sectional designs since it necessitates data collection about any prevalent phenomenon at one or single point of time, this saving both time and costs (Cooper & Schindler, 2008). It was a quantitative research study since data was collected through questionnaire.

Population Frame and Sampling Details: The general population of this study consists of all faculty members working in the different universities of Pakistan. However, since it is neither logistically possible nor time and cost wise feasible to collect data from all universities of Pakistan, therefore, three regions of Pakistan were randomly selected as target population of this study.

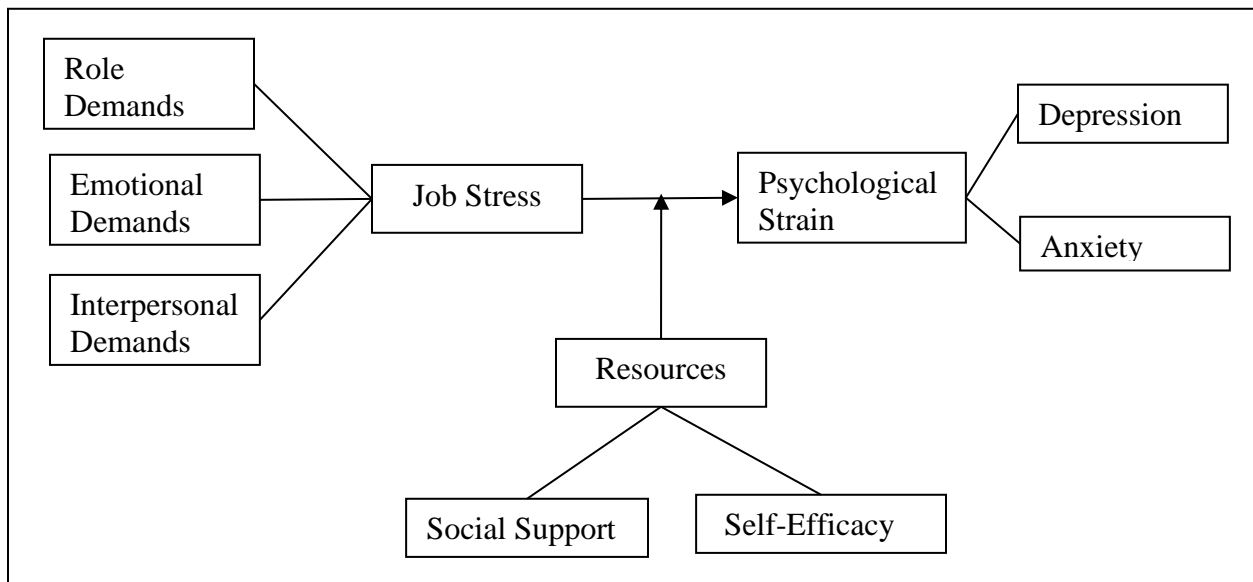


Figure 01: Research Framework of Study

The selected regions include, central Khyber Pakhtunkhwa, North Punjab and Federal Capital Territory. Within these selected regions, total twelve universities were

randomly selected. These twelve universities had total N: 2422 faculty members, as clear from Table 01.

Table 01: Population Frame and Sampling Distribution

| Universities Region Wise | Faculty Members | |
|--------------------------------------|-----------------|--------------|
| | Total Number | Sample Taken |
| Federal Capital Islamabad | | |
| 1. International Islamic University | 263 | 118 |
| 2. NUST | 282 | 127 |
| 3. COMSATS Institute of I.T | 275 | 124 |
| 4. Riphah International | 265 | 119 |
| 5. Iqra University | 132 | 59 |
| North Punjab | | |
| 6. UET, Taxila | 120 | 54 |
| 7. University of Arid Rawalpindi | 173 | 78 |
| 8. University of Wah | 112 | 50 |
| Central of Khyber Pakhtunkhwa | | |
| 9. UET Peshawar | 115 | 52 |
| 10. Agriculture University, Peshawar | 208 | 94 |
| 11. University of Peshawar | 226 | 102 |
| 12. SUIT, Peshawar | 251 | 114 |
| Total | 2422 | 1091 |

In the next stage, sampling was done within each selected university through Simple Random Sampling technique. This technique was selected since the total number of respondents are already known, and the Simple Random Sampling technique, there is an equal chance of each and every sampling unit to be selected (Thompson, 2012). The sample size was selected with the help of Slovin's formula, i.e., $n = N \div (1 + Ne^2)$ (Yamane, 1967). Normally for smaller population, the precision levels are relatively kept high, whereas for larger population sizes, the precision levels are relatively kept low. In this way a sample size of n: 1091 was selected from the total population

of N: 2422. This sample size is also justified because according to Cooper & Schindler (2008), a sample size which is 40% of the total population is a suitable representative for whole population.

Data Collection: Data were gathered through a self-reported and administered online itemed questionnaire, which was designed through adopting the below given scales:

1. Inter-personal demands were measure by 04 items of Faculty Stress Index (Gmelch et al., 1986) and 02 item of Teachers Stress Inventory (Fimian & Fastenau, 1990);

2. Role demands were measured by 06 items of Role Conflict and Role Ambiguity Scale (Rizzo et al., 1970);
3. Emotional demands were measured by 06 items of Emotion Work Requirements Scale (Best et al., 1997);
4. Psychological strain was measured by 08 items of General Health Questionnaire (Goldberg & Williams, 1988);
5. Social Support was measured by 02 items of Social Support Scale (Iverson et al., 1998) and 02 items of Organizational Support Scale (Eisenberger et al., 1986)
6. Self-Efficacy was measured by 04 items of Teacher Self-Efficacy Scale (Schwarzer & Hallum, 2008)

All the above statements were scaled on five-points Likert scaling procedure.

Data Analysis: Data was analysed through following statistical techniques:

1. Descriptive statistics like mean, percentage were used to analyze the sociodemographic data of respondents;
2. Cronbach's Alpha Coefficient was used to determine the reliability of data;
3. Principal Component Analysis was used to determine the construct validity of data;
4. Little's Test of Missing Completely at Random was used to examine missing data
5. Hierarchical Multiple Regression Analysis were run to determine the

direct relationship between job stressors and psychological strain and also for determining moderating effect of social support and self-efficacy

Results of Study

This section has step wise presented the result of study.

Missing Data Analysis: Before final data analysis, the missing data analysis was performed to know the response rate and overall missing values. The results regarding response rate showed that out of total 1091 distributed questionnaires, 752 questionnaires were successfully filled by the respondents. The 752 filled questionnaires were further checked for missing data by running the Little's Test for Missing Data Completely at Random (Little, 1988) through SPSS-20. The missing data results showed that 76 questionnaires were incompletely filled and had more than 10% missing data. These incomplete questionnaires were deleted since if data per questionnaire exceeds the limit of 10% then it should be deleted (Hair et al., 2010). Following the deletion of 76 questionnaires, the sample size dropped from 1091 to 676, with 61% response rate.

Reliability and validity Analyses: After the missing data analysis, the reliability and validity were checked. Table 02 shows the Reliability Cronbach's Alpha Coefficients result for all variables, which are within the acceptable ranges.

Table 02: Reliability Results

| Variables | Cronbach's Alpha Coefficients |
|-----------------------|-------------------------------|
| Interpersonal Demands | 0.96 |
| Role Demands | 0.97 |
| Emotional Demands | 0.87 |

| | |
|----------------------|------|
| Psychological Strain | 0.91 |
| Self-Efficacy | 0.91 |
| Social Support | 0.83 |

After the reliability analysis, in the next step, the construct validity was checked with the help of Principal Component Analysis by the Varimax Rotation (Kaiser, 1974). The results of Principal Component Analysis are visible in the Table 03. All the variables had factor loadings,

communalities, cumulative variances and Kaiser-Meyer-Olkin within the acceptable ranges. Thus, giving sufficient evidence for the construct validity of all six variable of this study.

Table 03: Statistics for Construct Validity

| Variables | Factor-Loadings | Communalities | KMOs Values | Cumulative Variances |
|-----------------------|-----------------|---------------|-------------|----------------------|
| Interpersonal Demands | 0.89 to 0.95 | 0.84 to 0.91 | 0.88 | 89.11 |
| Emotional Demands | 0.88 to 0.94 | 0.83 to 0.93 | 0.79 | 64.61 |
| Role Demands | 0.91 to 0.95 | 0.87 to 0.91 | 0.90 | 90.27 |
| Psychological Strain | 0.88 to 0.93 | 0.81 to 0.90 | 0.88 | 63.36 |
| Self-Efficacy | 0.87 to 0.91 | 0.78 to 0.82 | 0.83 | 79.70 |
| Social Support | 0.61 to 0.88 | 0.58 to 0.78 | 0.79 | 68.26 |

Socio-demographic Characteristics: Results for the socio-demographic characteristics of the respondents are visible in Table 04. Gender wise, there are more male respondents (63%) as compared to female respondents. It might be because of the cultural constraints of Pakistani society where males do work and female sit at home, however, this trend is now changing, and more females are going to join work outside home. Job position wise, there are more lecturers and assistant professors (77%) as compared to associate or full professors. It is because that most of universities hire lecturers and assistant professors, while reaching the

position of full professor requires a lot of experience and research background, which can hardly be attended. Education wise, there are more MPhil/MS and PhD, it is because now the universities only hire those who have either 18 years of MPhil/MS education or PhD and those days are gone when Masters or undergraduates were hired for the faculty position. Finally, job experience wise, there are more respondents having 06 to 10 years of experience, it is because most of respondents are either lecturers or assistant professors, so such job positions have normally this level of job experience.

Table 04: Socio-demographic Profile of Students

| Socio-demographic Variables | Number |
|-----------------------------|--------|
| Gender | |
| Male | 426 |
| Female | 250 |
| Job Positions | |

| | |
|---------------------|-----|
| Lecturer | 305 |
| Assistant Professor | 219 |
| Associate Professor | 88 |
| Professor | 64 |
| Education | |
| MPhil/MS | 393 |
| PhD | 259 |
| Post Doc | 24 |
| Job Experience | |
| < 05 Years | 109 |
| 06 to 10 Years | 230 |
| 11 to 15 Years | 114 |
| 16 to 20 Years | 129 |
| >20 Years | 94 |

Hypothesis Testing: The already formulated hypotheses were tested by running a series of Hierarchical Multiple Regression Analysis Models, as clear from Table 05. The details are as under:

a) *Model 01:* In the model 01 the sociodemographic data and Interpersonal Demands were entered as independent variable in 1st Step. In this step, the independent variables explained 27% of variance in dependent variable of Psychological Strain with $\Delta F=50.00$ significant at $p=0.00$ level, whereas Interpersonal Demands was found positive associated with Psychological Strain. In the 2nd Step, the Self-Efficacy and Social Support were entered into Model 01. In this step, the independent variables explained 19% of variance in dependent variable of Psychological Strain with $\Delta F=49.55$ significant at $p=0.00$ level. The Self-Efficacy and Social Support were found negatively associated with the dependent variable of Psychological Strain. In the 3rd Step, the product terms of ID*SE and ID*SS were entered into the Model 01. In this step independent variables explained 11% of

variance in dependent variable of Psychological Strain with $\Delta F=05.34$ significant at $p=0.05$ level. After entering of product terms, the beta coefficient of interpersonal demands got lesser, i.e., from 0.479 to 0.316, moreover, the beta coefficient of interaction effects (ID*SE and ID*SS) were significant at $p=0.05$ level, which denotes that full moderation effect has occurred. In other words, the moderating variables of Self-Efficacy and Social Support have successfully moderated the link between Interpersonal Demands and Psychological Strain.

b) *Model 02:* In the model 02 the sociodemographic data and Emotional Demands were entered as independent variable in 1st Step. In this 1st step, the independent variables explained 32% of variance in dependent variable of Psychological Strain with $\Delta F=63.66$ significant at $p=0.00$ level, whereas Emotional Demands was found positive associated with Psychological Strain. In the 2nd Step, the Self-Efficacy and Social Support were entered into Model 01. In this step, the independent variables explained 18% of

variance in dependent variable of Psychological Strain with $\Delta F=46.78$ significant at $p=0.00$ level. The Self-Efficacy and Social Support were found negatively associated with the dependent variable of Psychological Strain. In the 3rd Step, the product terms of ED*SE and ED*SS were entered into the Model 02. In this step independent variables explained 12% of variance in dependent variable of Psychological Strain with $\Delta F=14.08$ significant at $p=0.05$ level. After entering of product terms, the beta coefficient of emotional demands got lesser, i.e., from 0.431 to 0.323, moreover, the beta coefficient of interaction effects (ED*SE and ED*SS) were significant at $p=0.05$ level, which denotes that full moderation effect has

occurred. In other words, the moderating variables of Self-Efficacy and Social Support have successfully moderated the link between Emotional Demands and Psychological Strain.

Model 03: In the model 03 the sociodemographic data and Role Demands were entered as independent variable in 1st Step. In this 1st step, the independent variables explained 36% of variance in dependent variable of Psychological Strain with $\Delta F=75.88$ significant at $p=0.00$ level, whereas Role Demands was found positive associated with Psychological Strain. In the 2nd Step, the Self-Efficacy and Social Support were entered into Model 01.

Table 05: Regression Analysis Results

| | Model 01 | Model 02 | Model 03 |
|-----------------------|-----------------------------|-----------------------------|-----------------------------|
| STEP 01 | β^a | β^b | β^c |
| Gender | 0.033 | 0.059* | 0.021 |
| Job Position | 0.345* | 0.317* | 0.388* |
| Education | 0.225* | 0.173* | 0.261* |
| Experience | 0.112* | 0.126* | 0.104* |
| Interpersonal Demands | 0.479** | -- | -- |
| Emotional Demands | -- | 0.529** | -- |
| Role Demands | -- | -- | 0.562** |
| STEP 02 | | | |
| Gender | 0.033 | 0.054* | 0.022 |
| Job Position | 0.085 | 0.073 | 0.167* |
| Education | 0.039 | 0.006 | 0.103* |
| Experience | 0.096* | 0.108* | 0.092* |
| Interpersonal Demands | 0.374* | -- | -- |
| Emotional Demands | -- | 0.431* | -- |
| Role Demands | -- | -- | 0.460* |
| Self-Efficacy | -0.223** | -0.225* | -0.183* |
| Social Support | -0.196** | -0.153* | -0.150* |
| STEP 03 | | | |
| Gender | 0.033 | 0.057* | 0.028 |
| Job Position | 0.070 | 0.047 | 0.137* |
| Education | 0.033 | 0.021 | 0.078 |

| | | | |
|-----------------------------------|---------|---------|---------|
| Experience | 0.079 | 0.102* | 0.068 |
| Interpersonal Demands | 0.316** | -- | |
| Emotional Demands | -- | 0.323* | |
| Role Demands | -- | -- | 0.245* |
| Self-Efficacy | -0.125* | -0.148* | -0.121* |
| Social Support | -0.221* | -0.134* | -0.165* |
| ID*SE | 0.655* | -- | -- |
| ID*SS | 0.128* | -- | -- |
| ED*SE | -- | 0.382* | -- |
| ED*SS | -- | 0.671* | -- |
| RD*SE | -- | -- | 0.797* |
| RD*SS | -- | -- | 0.144* |
| Adjusted R ² (Step 01) | 0.272** | 0.322** | 0.362** |
| Adjusted R ² (Step 02) | 0.194** | 0.183** | 0.161** |
| Adjusted R ² (Step 03) | 0.110* | 0.124* | 0.117* |
| ΔF (Step 01) | 50.00** | 63.66** | 75.88* |
| ΔF (Step 02) | 49.55** | 46.78** | 35.56* |
| ΔF (Step 03) | 05.34* | 14.08* | 10.40* |

Note: Dependent Variable=Psychological Strain; β^a = Beta Coefficients of Model 01; β^b = Beta Coefficients of Model 02; β^c = Beta Coefficients of Model 03; ID=Interpersonal Demands; ED=Emotional Demands; RD=Role Demands; *= significant at p=0.05 level; **= significant at p=0.00 level

- d) In this step, the independent variables explained 16% of variance in dependent variable of Psychological Strain with $\Delta F=35.56$ significant at p=0.00 level. The Self-Efficacy and Social Support were found negatively associated with the dependent variable of Psychological Strain. In the 3rd Step, the product terms of RD*SE and RD*SS were entered into the Model 03. In this step independent variables explained 11% of variance in dependent variable of Psychological Strain with $\Delta F=10.40$ significant at p=0.05 level. After entering of product terms, the beta coefficient of emotional demands got lesser, i.e., from 0.562 to 0.245, moreover, the beta coefficient of interaction effects (RD*SE and RD*SS) were significant at p=0.05 level, which denotes that full moderation effect has occurred. In other words, the moderating variables of Self-Efficacy and Social Support have successfully moderated the link between Role Demands and Psychological Strain. The above given regression analysis results showed that the first hypothesis, i.e., "*H₁: There will be a positive linkage between job stress and psychological strain among the academic staff in the universities of Pakistan*" has been successfully accepted, since all of the three job stressors, i.e., ID, ED, & RD were found positively associated with the psychological strain. Likewise, the second hypothesis, i.e., "*H₂: The moderating variables of social support, and self-efficacy will buffer the job stress-psychological strain relationship in the universities of Pakistan*" has also been successfully accepted, since both Self-Efficacy and Social Support as moderators have successfully moderated the link between four Job Stressors and Psychological Strain.

Discussion on Results and Implications

This study initially aimed at knowing the link between job stress and psychological strain and further aimed at examining the moderating effects of Self-Efficacy and Social Support on the Job Stress- Psychological Strain interaction. Results showed that the all job stressors were positively associated with the Psychological Strain, moreover, Self-Efficacy and Social Support as moderators had successfully moderated the link between four Job Stressors and Psychological Strain. The results of current study are in concurrence with the results of previous studies on the topic of job stress and psychological strain in academia. Chris Kyriacou and his colleagues were the first to examine the effects of job stress in education institutions. They found that job stress had detrimental effects on the mental health of teachers (Kyriacou & Sutcliffe, 1977). In the modern literature various researchers have examined the link between job stress and psychological strain. De Simone et al (2016) conducted a study on the effects of job stress over the teachers health and found that job stressors like workload, bad working environment, negative perception of seniors and negative attitude towards change can badly affect the health of teachers by causing headache, irritation and stomach ache. Similarly Vincey & Pugalenthi (2017) and Liu & Yan (2020) conducted studies on the effects of job stress on psychological health of teachers and found that job stress can cause burnout, anxiety, restlessness, nervousness and hopelessness among the teachers. It means that job stress has negative effects on the psychological and physical health of the teachers.

Findings of present study about moderating effects on Self-Efficacy and Social Support are

also in agreement with findings of previous studies. Chris Kyriacou as pioneer examined the moderating role of Social Support among teachers and found that teachers can cope with stress by getting Social Support from colleagues (Kyriagou, 1981). Modern studies on the moderating role of Self-Efficacy and Social Support include a study by Skaalvik & Skaalvik (2017) on the job stress and self-efficacy among teachers. This study found that job stressors like student misbehavior, workload and bad working environment can cause burnout, exhaustion, and emotional problems among the teachers. While the individual self-efficacy of a teacher and the social support from other colleagues can buffer the negative effects of job stressors, since employees after receiving support feel more satisfied from their work and get more engaged in their work. Other studies on the moderating role of Self-Efficacy and Social Support include Faisal et al (2018), Ying & Aunguroch (2019), and Won & Chang (2020).

The findings of this current study and previous findings are providing meaningful insights about the nature of job stress and its effects. In fact, the job stress is consisted of environmentally generated factors that intervene with the psychological, physical, and social lives of teachers. Biopsychological once teachers are exposed to the unwanted demands that exists at the educational institution, then it is perceived by the mind as threat, and as reaction different adrenal cortical hormones, like, e.g, cortisol and serotonin are released. However, if this process is repeated and again then there is a selective serotonin re-up taking, which can ultimately cause pathogenic depression or anxiety feeling among the teachers (Flaten & al'Absi, 2016). Job stress in a similar way also interfere with the social life

of the teachers, and those teachers who are more frequently exposed to work demands have high level of work-family conflicts and have more social problems at home or with their colleagues (Noor & Zainuddin, 2011).

The findings of this study have certain important practical implications. At individual level the findings of this study will help in creating awareness among teacher to acquire knowledge about the causes and consequences of job stress. After teaches acquire the knowledge about job stressors, then they can adopt stress coping strategies and develop stress coping capacities with time. Teachers can also adopt a healthy lifestyle by keeping themselves away from that factor which can causes stress. At management or organizational level, the findings of this study will be particularly helpful the administrators of universities. The administrators of universities should improve the communication process at institute level, as it will help dealing role demands, role ambiguity and role conflict. The administrators of universities should launch regular stress management trainings, so that teachers can know how to cope stress through developing self-efficacy and take social support from colleagues. The administrators of universities should also provide a conducive physical working environment to the teachers, especially workload, overcrowded classes and unmatched roles should not be given to teachers. At policy level, the policy makers in the higher education setup of Pakistan and in the ministry of education, should work on formulating teachers' pro policies. They should give more funds to the universities. They should make a mechanism for ensuring institutional autonomy. The administrators and teachers at universities should be given participation in the

policy making process, so that such policies are made that are compatible to the need of teachers.

Conclusion, Limitations and Future Recommendations

Nowadays we are in age of knowledge, where the success of people is dependent on the successful acquisition, distribution, and utilization of knowledge. The universities are creating knowledge and they are utilizing it for betterment of humanity. Thus, universities have become a strategic asset of any country. however, since the modern universities have experienced pressure in the process of meeting needs of 21st century, therefore the academic staff within universities are subjected to different work-related demands that has causes mental health issues among them. It is therefore concluded that job stress is a recognized workplace issue in the academia of Pakistan, and it requires proper management. It not only includes the understanding of processes of stress development but require knowing the solution to cope with stress. For this purpose, there is a need of proactive steps that should be taken both at individual and institutional levels. Especially, Government of Pakistan may allocate funds to universities, so that universities may have sufficient resources to build a conducive working place for their teachers and scholars. In this way the they could be saved from devastating effects of job stress. The current study has certain limitations, which need to be mentioned. This study was cross sectional in nature, therefore in future longitudinal study on job stress may be conducted to know its long-term effects. This study has reported subjective perceived data so it is recommended that objective data can be collected on job stress and psychological strain

in future. The current study has collection data from twelve universities, so future researchers should collect data from more universities especially located in Sindh and Baluchistan provinces. This study has only examined main and moderating effects; therefore, future studies should examine the both moderating and mediating effects. Finally, this study has uses Job Demands Resources model (Bakker & Demerouti, 2008), however, the future researchers can use other job stress models like for example Success Resource model of job stress (Grebner et al., 2010), which was developed after this Job Demands Resources model.

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