

Research on the Influencing Factors of Job Stress of University Teachers ---- Take Changchun University of Science and Technology as an Example

LA RECHERCHE SUR LES FACTEURS INFLUANT SUR LE STRESS AU TRAVAIL DES PROFESSEURS D'UNIVERSITE- LE CAS DE L'UNIVERSITE DES SCIENCES ET DE LA TECHNOLOGIE DE CHANGCHUN COMME EXEMPLE

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Abstract

The paper selects 159 teachers of Changchun University of Science and Technology (CUST) by stratified sampling method to perform questionnaire survey, determines five factors that influence the job stress of university teachers by principal component analysis. It also analyzes the influence of academic title, gender, age, education background, length of service and discipline difference on the job stress so as to guide universities to deal with teachers' job stress.

Key words: University teacher; Job stress; Job performance

Résumé

Le présent texte sélectionne 159 professeurs de l'Université de la science et de la technologie de Changchun (CUST) par la méthode d'échantillonnage stratifié pour effectuer enquête par questionnaire, détermine cinq facteurs qui influencent le stress au travail des professeurs d'université par l'analyse en composantes principales. Il analyse également l'influence du titre de formation, le sexe, l'âge, l'éducation de base, la durée de service et de la différence de discipline sur le stress au travail afin de guider les universités à faire face au stress d'emploi des enseignants.

Mots clés: Professeur d'université; Le stress au travail; Le rendement au travail

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INTRODUCTION

Education is critical to the prosperity of a nation and universities are the source of innovation. University teachers play an important role for the quality of higher education, but the economic system reform from the planned economy to market economy, college enrollment expansion since 1999, undergraduate and graduate education quality assessment have put great stress on teachers' teaching, research and social capital accumulation. University teachers' outflow and death at an early age that happened frequently are becoming the center of public attention in different departments. On January 13, 2012, the event that a teacher of Tsinghua University named Cao Z. X. sent out a microblog for help was proved resulted from excessive stress. The survey data shows that 40-50 year-old is the peak period of university teachers' death, but this period is the right time for them to get achievements. However, the arduous task of teaching, the stress of increasing research requirements and the difficulty in pursuit of academic titles put more and more stress on them. So it is theoretically and practically important for us to study the influencing factors of the job stress of university teachers who take great social responsibility so that to build a harmonious academic and research environment, improve teaching quality of teachers and enhance students' learning efficiency, reduce the stress of student employment and improve the overall quality of Chinese.

1. THE DEFINITION OF TEACHERS' JOB STRESS

1.1 Stress and Job Stress

(1) Stress

Stress is a kind of dynamic scenario, in which an individual has to face the opportunities, limitations and requirements related to his or her desired goal, and the result from the dynamic scenarios is considered to be important and uncertain. According to the definition of stress, the existence of stress relies on three conditions: (i) there are opportunities, constraints and requirements related to an individual; (ii) the result of the opportunities, limitations and requirements is considered important by; (iii) the result is uncertain.

(2) Job stress

Job stress, also known as job tension, is the tense feeling in the work environment because of job. In a narrow sense, job stress means an employee's stress felt in the work scenario. In a broad sense, job stress includes the stress an employee experiences in and outside work. In this paper, job stress means the stress in a broad sense.

1.2 The Concept of Teacher's Job Stress

Inspired by the research on stress and job stress, many scholars have studied teachers' job stress. At present, their isn't a uniform definition of teacher' job stress, Qin Ping believes that a teacher's job stress is a series of passive feelings in his occupation activity because his self-esteem and safety are threatened due to the duties, requirements, expectations he bears are beyond his ability, such as anger and anxiety. Huang L. and Liu H. Y. think that a teacher's job stress refers to the nonconforming degree between a teacher's job requirements and his ability to cope with these requirements. According to above views, we define teacher's job stress as a series of physical, psychological and behavioral responses of a teacher result from stress sources that have long-term and continuous function on him, which threatens his individual object in work environment.

2. THE SURVEY OF TEACHERS' JOB STRESS

2.1 The Respondents and Sampling Methods

(1) The respondents

There are 1288 teachers in CUST including administrative teachers who take part in teaching, in which there are 197 professors, 527 associate professors, 564 lecturers and teaching assistants.

(2) Sampling method

In order to maintain the consistency of the sample

structure and the overall structure of the respondents, we adopt stratified sampling method to make full use of the information of teachers learn in advance so that to keep the sample structure and the overall structure consistent, therefore to increase the representativeness of the sample. We select academic titles as an index of sample stratification because teachers pay attention to and pursuit the titles, as well as the university adopts different assessment criteria to evaluate its teachers' performance according to their academic titles. Samples are shown in Table 1.

Table 1
Sample Distribution

Academic title	Number	Percentage
Professor	24	15.3%
Associate professor	65	40.9%
Lecturer	49	30.66%
Teaching assistant	21	13.14%
Total	159	100%

2.2 The Design of the Questionnaire

We design 15 questions in the questionnaire by combining the questions from the test table for university teachers' job stress compiled by Liu Y. S. and the university teachers' job stress scale compiled by Li H., which includes three kinds of problems, namely, overall job stress, causes of stress, the influence of stress on performance. We adopt four-point method to measure university teachers' job stress (1 - no stress, 2- mild stress, 3 - moderate stress, 4 - severe stress) and total score is 60, the higher the score, the greater the stress is.

2.3 Data Processing

We distribute 159 questionnaires and take back all of them. All questionnaires are valid for the study, and then we adopt principal component analysis method by SPSS to select the investigation items with high common degree and factor load value, and delete the investigation items with low common degree and factor load value. There are five factors with eigenvalue more than one in the initial load matrix and their cumulative contribution of variance account to 67.224%. Rotate the initial load matrix orthogonally and obtain factors load matrix as shown in Table 2.

According to the results of factor analysis, stress factors are divided into five big categories: teaching (stress factor 1), external monitoring and impetus (stress factor 2), interpersonal communication (stress factor 3), external requirements and competition (stress factor 4), promotion and development (stress factor 5).

3. ANALYSIS OF THE INFLUENCING FACTORS OF UNIVERSITY TEACHERS' JOB STRESS

The statistical results show that 47 teachers account for 29.6% select "severe stress", 84 teachers account for 52.8% select "moderate stress", and the rest account for 17.6% select the mild stress, and no one thinks that he doesn't feel any stress. The data shows that more than 80 percent of teachers feel severe or moderate stress. We adopt single factor analysis of variance to analyze the influence of academic title, gender, age, education background, length of service and discipline difference on teacher's job stress.

3.1 Academic Title

Statistical results show that the higher the academic title is, the higher stress in "external monitoring and impetus", "external requirements and competition" and "promotion and development". A university teacher with higher academic title has to take part in more activities and take more responsibility. Therefore, with the promotion in academic title, on the one hand, a teacher will require more on his own academic level and capacity, on the other hand, he has greater space for his own development and faces more challenges and stress from all sides.

3.2 Gender

Through independent variable analysis on gender, it is found that gender difference has not significant influence on whether five big factors or overall stress. Specially, the job stress of female university teachers in "teaching" and "interpersonal communication" is lower than that of male teachers, but there is no stress difference in "external monitoring and impetus", "external requirements and competition" and "promotion and development" between female and male teachers.

3.3 Age

According to the results of independent variable analysis on age, university teachers between 31-40 years old bear the greatest stress because they are in a period of change in both career and family with heavy workload, complicated human relation and more challenges. The teachers between 41-50 years old bear greater job stress because they have reached a higher degree for their work in high education, but increasing responsibilities put greater stress on them. The job stress of young teachers between 21-30 years old is relatively less than that of teachers between 41-50 years old since most of them just began to work in university for not long time and some of them work and study simultaneously. Their human relations are relatively simple, so their stress in this respect is the smallest. Their job stress mainly comes from

arduous teaching task, promotion and development. The teachers above 51 years old bear the least stress because most of their work and living are well balanced, they have little family stress and have gotten used to their working environment since they have been teaching for decades.

3.4 Education Background

The results of independent variable analysis on teachers' education background show that the stress levels among teacher with different education background are obviously different, namely, the higher the education background of a teacher is, the greater the stress he bears, because job specification, working amount and difficulties are related to corresponding education background. Generally, a person with higher education background will have more requirements and consider more on job and living than average persons, which make them bear excessive stress sources.

3.5 Length of Service

The results of independent variable analysis on teachers' length of service indicate that the length of service influences job stress similarly as that of age, so we do not analyze it further.

3.6 Discipline Difference

Statistic data show that the overall stress of the teachers engaged in economics, management, literature and laws is much greater than that of the teachers engaged in science and technology. Specially, their job stress in teaching is almost same because the university's teaching requirements on them are the same. However, the stress of the teachers engaged in economics, management, literature and laws comes from "external monitoring and impetus", "interpersonal communication", "external requirements and competition" and "promotion and development" is greater than that of teachers engaged in science and technology because science and technology are the advantage and characteristic of CUST, which have developed smoothly and formed advantage enrichment effect.

In summary, the influences of above factors on university teachers' job stress are as follow: (1) academic title and education background have positive correlation with university teachers' job stress. The higher a teacher's academic title is, the greater the job stress he feels in "external monitoring and impetus", "external requirements and competition" and "promotion and development"; the higher a teacher's education background is, the greater overall job stress he bears. (2) The relation between age (length of service) and job stress can be described as an inverted U-shape; the stress of the teachers in the middle is higher than the teachers on both sides. (3) Job stress has some relation with the discipline and task a teacher engaged in.

4. THE RELATION BETWEEN UNIVERSITY TEACHERS' JOB STRESS AND PERFORMANCE

The correlation analysis indicates there isn't obvious correlation between job stress and job performance, and all significant correlated factors are external stress, including heavy workload, lack of confidence in the promotion and development, and excessive supervision from external environment, which indicates that the teachers of CUST work passively in some degree.

CONCLUSION AND SUGGESTIONS

Generally speaking, the sources of university teachers' job stress include five aspects: teaching, external supervision and impetus, interpersonal communication, external requirements and competition, promotion and development, in which promotion and development put the greatest stress on teachers, which is a double-edged sword, on one side, it encourages competition so as to do good to innovation, but on the other hand it may lead the teachers to commit too much their energy to promotion and career development, and can not really focus on teaching and research work. "Interpersonal communication" puts relatively less stress on teachers. So the university should pay attention to perfect its promotion and cultivation system, and promote healthy competition to release the teachers' job stress. In addition, investigation data show that the teachers of CUST work passively, so it should adjust its administrative system and policies to relieve their job stress and promote them to work actively.

The results of difference analysis indicate that universities should pay attention to teachers' stress resulted from academic title, age and education background. The job stress differences between teachers with different academic titles remind universities of paying attention to the psychological health of teachers at middle age with middle-level academic titles and take corresponding countermeasures to relieve their job stress because they bear serious job stress. Universities should also pay special attention to the job stress of the teachers with high education, provide better opportunities and broader development space for them so that they can do their best to work, thus to provide a human resource basis for the high efficient operation and innovation of universities.

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