

Analysis based on the teaching pressure and living pressure model of China's college teachers

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Abstract

It has been found from relevant research and survey that currently, college teachers are facing the pressure of various aspects, including working pressure, living pressure, environmental pressure and health pressure, etc. These pressures will directly affect teaching quality, target cultivation and students' quality. Aiming at the above problems, teaching pressure and living pressure model of China's college teachers has been established in this paper. The results shown that the model established in this research can be applied in real investigation, which has provided a reference to enrich China's working pressure and living pressure management theory and for colleges and teachers to cope with working pressure and living pressure. So its theoretical and practical meanings are very significant.

Keywords: college teachers, teaching pressure, living pressure, model analysis

1 Introduction

College teachers, as an important part of China's teaching group, human resource for the sustainable development of China's higher education and also the core force of national development as well as educational development, play a very important role in completing educational goals and education missions. It has been found from relevant research and survey that currently, college teachers are facing the pressure of various aspects, including working pressure, living pressure, environmental pressure and health pressure, etc. These effects are deeper than general individuals. Therefore, it is very significant for both teachers themselves and the education of students to care and maintain the pressures of college teachers [1-3]. The purpose of managing college teachers' pressure is to alleviate and control the pressure so as to improve teachers' working and living qualities, promote college teachers' healthy physical and mental development, improve the work efficiency and vitality of colleges and avoid negative impacts on college teachers and brought by various pressures.

2 Theoretical basis of pressure research

Pressure research of the occupation teacher started in the 1960s, and nowadays, many studies have shown that it can be concluded from teachers' self reports that the source of pressure on teachers is consistent and universal. At present, there is not unified theoretical model to explain reasons causing the working pressure, and the most influential pressure theories are various interaction theories of the Stimulus - Response Theory, which conducts a full range of investigations of the interactive influence between personal characteristics and external stimulus from multi angles. For example, person-environment fit theory (French, etc. 1982), job demand-control model (Karasek, 1979), and cognitive evaluation theory (Lazarus, etc. 1984). Later, French and other people fused the ideas of original individual-

environment matching theory, and finally formed the relatively mainstream working pressure generation model, namely the stimulation-psychological feeling evaluation-physiological changes-behavioral response correlation system. Therefore, working pressure model arose at the historic moment in the above results, mainly including OSI model, Newstrom pressure model and Robbins pressure model, etc. OSI model [4-6], involving three dimensions: pressure source variables, buffer variables, and pressure result variables, has seven aspects totally. While in Robbins pressure model, the feelings of pressure are divided into five variables according to individual difference, namely work experience, personal cognition, social support, the first sense and the concept of controlling point, and the results of its working pressure are shown in three aspects: psychological, physiological and behavioural [7-10]. In Newstrom pressure model, working pressure sources are divided into work factors and non-work factors, and it has been pointed out that there are two kinds of working pressure sources: the positive one and the negative one. It can be seen from the existing pressure researches that variables including in model construction include independent variables (pressure source), intermediate variables (job satisfaction, supporting sense of organization, self efficacy, coping strategies), and result variables (work performance, pressure reaction and turnover intention).

3 Establishment of college teachers' teaching pressure and living pressure model

College teachers' teaching pressure model has been established in this research with independent variables, intermediate variables and result variables based on the above relevant working pressure theories. Independent variables belong to the source of teaching pressure, including role responsibilities, organizational management, appointment system, performance appraisal, career development and job securities, and the contents and

structures of these six aspects have been explored and tested empirically from the angle of system. Intermediate variables, including supporting sense of organizations, job satisfaction, self efficacy and coping strategies, analyze the moderating and mediating effects of these variables in teaching pressure functions systematically. Outcome variables include work performance, pressure reaction and turnover intention, and conduct deep research into the influence of these variables to teachers' mental health, physical health, organizational performance and turnover intention. Meanwhile, in order to explore the universal and regular conclusions of teaching pressure of China's college teachers, eight demographic characteristic factors are selected as the control variables, like age and sex, etc. At the same time, college teachers' living pressure model has been established with independent variables, intermediate variables and result variables. Independent variables belong to the source of living pressure, including six aspects: family life, development and improvement, interpersonal relationship, the nature of work, work conflict and interest satisfaction, and make exploratory and confirmatory analysis of the contents and structures of these six aspects. Intermediate variables, including family support, life satisfaction, self-efficacy and coping strategies, make systematic analysis of the moderating and mediating impacts of these variables in life pressure function. Result variables are life quality and pressure reaction and deep research has been conducted about the impacts of these variables on teachers' mental health, physical health, organizational performance and turnover intention. Meanwhile, eight demographic characteristic factors have been selected as the control variables.

4 Prediction table of teaching pressure and living pressure of authorized college teachers

In order to develop tools to measure teaching pressure and living pressure of China's college teachers, on the basis of referring to relevant researches and relevant mature measurement tables, questionnaires to predict the teaching pressure and living pressure of college teachers have been compiled through literature analysis and results of qualitative interviews. The preliminary investigation

questionnaires have been obtained through prediction and item purification. Finally, through the data exploratory factor analysis and confirmatory factor analysis, "Teaching Pressure Questionnaire for College Teachers" and "Living Pressure Questionnaire for College Teachers" have been determined so as to provide effective tools to measure college teachers' teaching pressure and living pressure as well as provide basis for researches affecting the mechanism. Herein, each pressure questionnaire includes two sub-questionnaires, namely pressure source questionnaire and negative pressure reaction questionnaire.

Step One. Conduct survey and investigation. Make reference from relevant teachers' pressure survey, select 50 people with different demographic characteristics as the objects and conduct the interview. Collect pressure source interview result items and pressure reaction interview result items.

Step Two. Compile the prediction questionnaire, including prediction questionnaire of college teachers' teaching pressure source, prediction questionnaire of college teachers' teaching pressure reaction, prediction questionnaire of college teachers' living pressure source and prediction questionnaire of college teachers' living pressure source.

Prediction questionnaire of teaching pressure source include 24 measurement items (Table 1), referred to the pressure source prediction questionnaire of Zen Xiaojuan's research of college teachers' working pressure. Prediction questionnaire of living pressure source include 21 measurement items (Table 1), referred to life incident pressure questionnaire compilation of Zhang Jijia and other people's research of college teachers' living pressure. The evaluation criteria are referring to the Likert five-points from "no pressure" to "great pressure", and the higher the evaluation number, the greater the pressure is. The prediction questionnaire of teaching pressure reaction and prediction questionnaire of living pressure are compiled by referring to Zen Xiaojuan's pressure research of college teachers after forming a group, and the two kinds of pressure reaction prediction questionnaires are the same questionnaire, including 15 items (Table 2).

TABLE 1 Measurement items of college teachers' teaching pressure and living pressure

Item No.	Measurement Items of Teaching Pressure Source	Item No.	Measurement Items of Living Pressure Source
1	Knowledge Updating	1	Support parents, marriage and love, children's health
2	Scientific Research Tasks	2	Family discord, divorce, accidental injury
3	Teaching Tasks	3	Changes in life, housing, economic difficulties
4	Professional Title Evaluation	4	Physical energy shortage, poor transport, unstable work
5	Quantitative assessment	5	Low academic degree, low paper quality, cannot keep up with the subject's development
6	Students' evaluation of teachers' teaching quality	6	Few further learning opportunity, difficult promotion
7	Appointment System	7	Little understanding of students, students' poor ability
8	Job Competition	8	Few researching fund
9	The same criteria to evaluate teachers of different subjects	9	Work is not recognized
10	Opportunity to participate in the school's management	10	Complex interpersonal relationship, unjust evaluation system
11	Colleges' administrative management system	11	Generation gap in family
12	Some college policies change frequently	12	Heavy work burden, multi-tasks
13	Colleges' short-term target management	13	Job competition
14	Improved educational requirement	14	Fast updating of knowledge
15	Fewer further learning opportunities	15	Complex relationship between teachers and students
16	Conflict between further learning and work	16	High demand on scientific research
17	Work guarantee	17	Conflict between work and life
18	Disproportionate return to effort	18	Professional Title Evaluation
19	Salary	19	House purchase

20	Students' requirement for teachers	20	Unsatisfying sense of achievement
21	Too much responsibility	21	Overall living pressure degree
22	Teachers' career expectation		
23	Teachers' high expectation for themselves		
24	Total teaching pressure degree		

TABLE 2 Pressure reaction measurement items

Item No.	Pressure Reaction Measurement Items	Item No.	Pressure Reaction Measurement Items
1	Headache, stuffy, ringing and discomfort	9	Aggressive behaviors
2	Decreased appetite	10	High error rate at work
3	fatigue	11	Bad temper
4	Low mood	12	Meaningful work
5	Memory loss	13	Be very interested in things around
6	inattention	14	Happy and confident with clear life goals and purposes
7	Anxiety, tension	15	Take active action
8	Slow and chaotic thinking		

5 Current measurement table items and purification

5.1 ACQUISITION OF PREDICTION QUESTIONNAIRE DATE

In March 2014, 300 teaching pressure prediction questionnaires and 300 living pressure prediction questionnaires were released with teachers in 3 colleges in the province as the research objects, and 298 questionnaires

TABLE 3 Purification results of prediction questionnaire items

Item Purification	Amount of Items after Purification	Cronbach α	KMO	Sig	Suitability of Factor Analysis
Teaching Pressure Source	23	0.926	0.856	0.000	Very suitable
Living Pressure Source	21	0.934	0.869	0.000	Very suitable
Pressure Reaction	11	0.901	0.875	0.000	Very suitable

CITC value of teachers' pressure source item 10 "opportunity to participate in the school management" is 0.2 < 0.4, so this item was deleted, and items of teaching pressure source became 23 with the overall reliability after the deletion as 0.926. This shows that the questionnaire has good internal consistency. KMO value of Bartlett test and KMO sample test value are 0.856, and the significance $P=0.000$. Therefore, the questionnaire has good validity, and was suitable for factor analysis. While items on living pressure source questionnaire meet the standards, so they are suitable for factor analysis.

After being purified and tested, the CITC value of item 12, 13, 14, and 15 in teachers' pressure reaction prediction questionnaire < 0.4, and they are 0.1, 0.07, 0.12 and 0.26 respectively. Therefore, item 4 was deleted, and pressure reaction questionnaire has 11 items with the overall reliability after deletion as 0.901. This shows that the questionnaire has relatively good internal reliability. KMO value of 11 items after purification was 0.875 and the significance $P=0.000$, so the questionnaire has good validity

were returned with the recovery rate as 99.3%. Exclude the disqualified returned questionnaires, and the standard is: an unified answer with exactly the same answers; ≥ 2 choices of answers; more than 2 questions missed. Finally, 289 qualified teaching pressure questionnaires were obtained with the pass rate as 96.3%, and 291 living pressure questionnaires were obtained with the pass rate as 97%. It could be found from analyzing the basic conditions of investigated teachers with demographic analysis that the conclusion was reliable with strong randomness.

5.2 ITEM PURIFICATION OF PREDICTION QUESTIONNAIRES

Assess the reliability and validity of survey data obtained in the prediction so as to modify the questionnaire. CITC item-overall relevant coefficient purification measurement item and radical item purification were used to 289 teaching pressure prediction questionnaires and 291 living pressure questionnaires, and the Cronbach reliability coefficient measurement table was used to assess the consistency within the table, and suitability test was used in factor analysis. Item Standard: CITC > 0.40, Cronbach Alpha coefficient should be > 0.7 and factor analysis of KMO > 0.7. Purification results were shown in Table 3.

and is suitable for factor analysis. While items on living pressure source questionnaires could meet the standard, so they were suitable for factor analysis.

6 Conclusion

By establishing targeted and rational pressure analysis models aiming at the special occupation teacher, we could effectively study pressure of China's college teachers, so as to find the pressure source, arouse college teachers' attention to work pressure and living pressure and actively cope with the pressure. In this paper, models of college teachers' work pressure and living pressure are established and simulation analysis is conducted, which can enrich China's work pressure and living pressure management theories, and provide reference for teachers to cope with their work pressure and living pressure. So it has significant theoretical and practical meanings. The model established in this research can be applied in real investigation.

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