

An empirical study of university teachers' recovery experiences affecting burnout¹

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Abstract: This study takes the relationship between leisure benefits and teacher burnout in colleges and universities as the research question. Based on burnout theory, effort-recovery theory and leisure theory, a theoretical theory model and research hypothesis were constructed. This study uses questionnaire survey method to collect relevant data. The study used structural equation modeling to test the hypotheses of the data. The structure of the study indicated that there is a significant direct relationship between college leisure benefits and teachers' burnout, and also college leisure benefits have an impact on teachers' burnout through the mediating variable of recovery experience.

I. INTRODUCTION

Effort-recovery theory suggests that after an employee makes an effort to meet job requirements, he or she needs to take appropriate breaks to bring the physical and mental systems back to baseline levels again and to recover sufficiently from the adaptive physiological responses/workload responses generated by the job, but if recovery is not achieved after the workload and the physical and mental systems are activated again before returning to baseline, the normal effort-recovery process will be hindered. If the effort-recovery process is blocked for a long period of time, burnout can occur (Meijman & Mulder, 1998). The effort-recovery theory implies a relationship between individuals' leisure and their burnout, and the findings of Zhao et al. (2013, 2017) and Zhang et al. (2015) further suggest that individuals' leisure is significantly and negatively related to burnout, so does the

leisure benefits provided by universities also have a beneficial effect on teachers' burnout? To explore this question, this study will explore the ways in which leisure benefits provided by colleges and universities affect teachers' burnout, using college leisure benefits as the independent variable and teachers' burnout as the dependent variable, and further reveal the specific patterns of the effects of college leisure benefits on teachers' burnout, using recovery experience as the mediating variable and situational factors such as the nature of teachers' work as the moderating variable.

II. LITERATURE REVIEW AND RESEARCH HYPOTHESIS

Effort-recovery theory (Meijman & Mulder, 1998) is based on the physiological assumption that after an employee makes an effort to meet the demands of the job (such as role ambiguity, role conflict, time pressure, excessive workload, and stressful work atmosphere), appropriate rest is required to bring the mind-body system back to baseline levels again and to recover from the adaptive physiological responses generated by the job/workload response; however, if the physical and mental systems are not restored after the effort and the physical and mental systems are activated again before returning to baseline, the normal effort-recovery process will be hindered, and the effort-recovery process will trigger burnout if it is hindered for a long time, and according to the basic principles of effort-recovery theory, this study concluded that college leisure welfare is an important antecedent of burnout one of the dependent variables of burnout, and college leisure benefits

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will have a positive impact on teachers' burnout; however, the basic paradigm of leisure-work relationship research (L-O-W) clearly points out that it is meaningless to directly study the relationship between leisure-related variables and work-related variables, and the exploration of the relationship between the two requires the introduction of personal cognitive variables (O), and this study, through the analysis of literature related to recovery experience, argues that recovery experience can be used as an individual cognitive variable to study the relationship between college leisure benefits and teacher burnout, i.e., college leisure benefits will have an impact on teacher burnout through recovery experience; in addition, individuals are influenced by the situational factors in which they are located to give specific meanings to work- and leisure-related concepts (Iso-Ahola, 2010), so the situational factors in which individuals are located should be considered to have a moderating effect on the relationship between college leisure benefits and In this study, three factors were selected as situational factors: type of college, nature of work, and teachers' personal differences, and the moderating effects of these three factors on the relationship between leisure benefits and teachers' burnout in colleges and universities were examined. Based on this, the following hypotheses are proposed in this study.

H1: There is a significant direct effect of leisure benefits in colleges and universities on teachers' burnout.

H2: There is a mediating effect of recovery experience on the relationship between leisure welfare and teachers' burnout in colleges and universities.

H3: There are moderating effects of college type, job nature and teachers' individual differences on the relationship between college leisure benefits and teachers' burnout.

III. METHOD

Questionnaire design

In this study, the research data were collected by using the questionnaire method with college teachers as the respondents, and the questionnaire consisted of four parts: the first part was the questionnaire of leisure benefits in colleges and universities. In the questionnaire, this study explained the leisure benefits in colleges and universities, firstly, it asked whether colleges and universities provided leisure benefits, and if they did not, the

survey was finished, and if colleges and universities provided leisure benefits, it measured the teachers' leisure benefits obtained from college leisure benefits, and the measurement of leisure benefits is based on Ajzen's (1991) Leisure Benefits Scale, which contains two parts of psychological and social benefits of college leisure benefits, with 12 questions; the second part is the Recovery Experience Questionnaire, which is prepared based on Shimazu et al.'s (2012) Recovery Experience Scale (RE), which contains psychological The third part is the Burnout Questionnaire, based on the MBI-Gs scale (BO) revised by Chao-Ping Li (2003), which contains three dimensions of emotional exhaustion, depersonalization, and low achievement, with 15 items. The fourth part is the Situational Factors Questionnaire, which includes questions on the nature of the teacher's job, the type of college or university in which the teacher works, and individual differences. The first three parts were measured by using a 5-point Likert scale, and each question item was listed item by item with 5 levels for respondents to choose: 1=strongly disagree, 2=disagree, 3=average, 4=agree, and 5=strongly agree.

Data collection

The data collection of this study was divided into two stages: the first stage was the pre-survey stage, the final number of valid questionnaires obtained was 98, the reliability and validity of the pre-survey questionnaires were analyzed using exploratory factor analysis, and the formal questionnaire was finalized; the second stage was the formal survey stage, the formal survey started from June 2017, using both mail and on-site surveys, a total of 500 The validity and validity of the collected data were further determined by using validation factor analysis in this stage, and the questionnaire data with good reliability and validity were used as the final research data.

IV. RESULTS

Scale reliability test

In order to ensure the reliability of the questionnaire, this study conducted reliability tests on the variable scales, and in the specific reliability tests, Cronbach's coefficient and half-measure reliability were mainly used to test the questionnaire of this study. The results showed that the questionnaires in this study had good internal consistency, as shown in Table 1.

Table 1 Scale reliability test results

Variables	Cronbach	Half confidence
Leisure Benefits	0.806	0.719***
Recovery Experience	0.844	0.807***
Burnout	0.858	0.815***

Note: *** indicates $P < 0.001$

Scale validity test

In order to ensure the validity of the questionnaire, validity tests were conducted on the variable scales in this study. The remaining indicators $GFI = 0.899$, $AGFI = 0.897$, $NFI = 0.901$, $RFI = 0.902$, and $CFI = 0.915$ are all close to or greater than 0.900, indicating that the overall model fits well and meets the acceptable fit criteria. The results of testing the intrinsic structural fitness of the model showed that: the factor loadings

of each indicator were all greater than 0.45, indicating that each manifest variable had a high contribution to the latent variables; the CR values of the three variables of the study model were all above 0.5, indicating that the three variables of the model were internally consistent; the AVE values of each latent variable were all greater than 0.5, indicating that each latent variable met the reliability criteria and had convergent validity, as shown in Table 2. The details are shown in Table 2.

Table 2 Validity test results

Latent variables	Dimensions	Factor loadings	S.E.	CR	AVE
Leisure Benefits	Psychological benefits	.779	.033	0.85	0.77
	Social benefits	.979	.036		
Recovery Experience	Disengagement	.533	.043	0.65	0.58
	Relaxing Experience	.700	.032		
	Control Experience	.619	.034		
	Mastering Experience	.776	.036		
	Community Experience	.665	.033		
Burnout	Emotional exhaustion	.461	.029	0.68	0.61
	Depersonalization	.478	.033		
	Low achievement	.718	.030		

Main effect and mediating effect test

In order to test the main effect of college leisure benefits on teachers' burnout and the mediating effect of recovery experience, this study conducted structural equation validation of the theoretical model of college leisure benefits, recovery experience, and teachers' burnout using AMOS statistical software according to the hypothesis section on the relationship between college leisure benefits, recovery experience, and burnout, and the results showed that the χ^2/df statistic of the model was 2.867 (fitting criterion < 5); the RMSEA value was 0.047 (fitting criterion < 0.08), the PGFI value was 0.703 (fitting criterion > 0.50), and the remaining indicators $GFI = 0.910$, $AGFI = 0.907$, $NFI = 0.902$, $RFI = 0.903$, $CFI = 0.925$, all of which were greater than 0.900, AMOS The scores of the above metrics in the analysis results indicate that the overall fit

of the structural model is good and meets the acceptable fit criteria.

The fit indicators output from AMOS showed that the theoretical model of college leisure benefits, recovery experience and burnout had a good fit with the data, and in order to further confirm the relationship between the variables, it was necessary to test the path coefficients between the variables and their significance. the estimated statement of the parameters of the model from AMO showed that the coefficient of the effect of college leisure benefits on recovery experience was 0.175, and the path coefficient after standardization was 0.503. coefficient is 0.503, and the significant level of this relationship is 0.000, which reaches the significant level. This result indicates that leisure welfare has a significant positive effect on recovery experience, and leisure welfare is one of the

antecedent variables of recovery experience; the coefficient of the effect of leisure welfare on burnout is -0.239, and the path coefficient after standardization is -0.448, and the significant level of this relationship is 0.000, which reaches the This result indicates that leisure benefits have a significant negative effect on burnout, and leisure benefits provided by universities to teachers have a good effect on reducing teachers' burnout, and hypothesis H1 holds; in this model, the effect of recovery experience on burnout is a coefficient of -0.573, and the path coefficient after standardization is -0.374, and the significant

level of this relationship is 0.000, which reaches the significant level, this result indicates that there is a direct effect of leisure welfare on burnout and also an indirect effect on burnout through recovery experience, and from the significant level, both direct and indirect effects on the effect of leisure welfare on burnout are significant, according to the basic principle of mediating effect (Wen et al., 2005), recovery experience plays a role in the relationship between leisure welfare and burnout, and hypothesis H2 holds.

Table 3 Pathway relationships among leisure well-being, recovery experience, and burnout

Path Direction	Standardized path coefficient	P
Leisure benefits→Recovery experience	0.503	0.000
Recovery experience → Burnout	-0.374	0.000
Leisure benefits → Burnout	-0.448	0.000

V. CONCLUSION

This study, guided by effort-recovery theory, followed the basic paradigm of leisure-work relationship research (L-O-W) proposed by Iso-Ahola (2010), and explored the relationship between leisure benefits, recovery experience and teacher burnout in colleges and universities. The results found that there is a direct relationship between college leisure benefits and teachers' burnout, while college leisure benefits have an impact on teachers' burnout through the mediating variable of recovery experience, and the process is also moderated by teachers' individual differences, job nature and college type.

Positive effects of college leisure benefits on teachers' burnout

As one of the important theories to explain burnout, the effort-recovery theory implies the relationship between individual leisure and burnout, and the findings of this study show that college leisure benefits have a direct positive impact on teachers' burnout, and college leisure benefits can effectively alleviate teachers' burnout, while college leisure benefits can also have an impact on teachers' burnout through recovery experience. It is not difficult to see that college leisure benefits alleviate teachers' burnout is a typical effort-recovery process, and the establishment of this process is a corroboration of the scientific nature of effort-recovery theory; besides the implication of the existence of effort-recovery theory on the relationship between leisure and burnout, another important

theoretical basis of burnout research, resource conservation theory argues that during leisure time, teachers are not confronted with work-related demands; therefore, leisure provides an opportunity for teachers to stop further loss of their resources and to have the opportunity to regain them and even to be able to acquire new additional resources (Eden, 2001; Sonnentag, 2001), although this study cannot confirm that teachers acquire new additional resources during leisure. At least the findings of this study show that leisure has prevented further loss of teachers' resources and has been effective in restoring them, and from this perspective, the findings of this study also provide useful footnotes for the scientific validity of resource conservation theory.

There is a mediating mechanism in the process of leisure benefits in universities to alleviate teachers' burnout

The findings of Zhao et al. (2013) and Zhang et al. (2015) showed a significant direct correlation between leisure and burnout, while the findings of this study also showed a direct correlation between leisure benefits in colleges and universities and teacher burnout, which is consistent with the research of the two aforementioned scholars, with the difference that the findings of this study also showed a significant relationship between recovery experience on leisure benefits in colleges and universities and teacher burnout. Iso-Ahola (2010) argued that when examining the relationship between leisure and work, simply correlating objective indicators of leisure participation

with job variables such as job performance and job satisfaction does not explain the effect of leisure on work because the concepts of leisure and work are meaningless in themselves, and individuals assign certain values and meanings to these concepts. Leisure activities themselves are not socially isolated, but those individuals involved in leisure activities give specific meanings to various leisure activities; combined with Iso-Ahola's discussion of the work-leisure relationship, although the findings suggest a direct correlation between leisure well-being and teacher burnout in colleges and universities, this direct correlation may not directly prove the relationship between leisure and work, and the It is more scientifically significant to explore the mediating mechanism between leisure benefits and teachers' burnout, that is, there is a "medium" for leisure benefits in colleges and universities to alleviate teachers' burnout, and this "medium" is recovery experience. If there is a lack of recovery experience, no amount of leisure activities can achieve the purpose of reducing burnout. Then, in order to achieve the purpose of reducing burnout, it is necessary to combine college leisure welfare with recovery experience and pay attention to the important role of recovery experience in the whole influence mechanism in order to achieve good results.

Research shortcomings and future research directions

The shortcomings of this study are mainly that the research data were obtained through questionnaires, which were all point-in-time data, and the sample data obtained had certain deviations, and research methods such as empirical sampling method to overcome the defects of point-in-time data can be used in future research to make the research results more shoppable; in addition, although this study proves that leisure benefits in colleges and universities have positive effects on teachers' burnout, it is not clear about In addition, although this study proves that there is a positive effect of leisure benefits on teachers' burnout in colleges and universities, there is no in-depth research on what kind of leisure benefits should be provided, how many times a year they should be provided, and how long a single time they should be provided, so future research in this area has more practical significance.

VI. REFERENCES

- Freudenberger, H. J. Staff Burn-out[J]. *Journal of Social Issues*, 1974,30(1):159-165.
- Fritz C, Sonnentag S. Recovery, well-being, and performance-related outcomes: the role of workload and vacation experiences.[J]. *Journal of Applied Psychology*, 2006, 91(4):936-45.
- Iso-Ahola.The Social Psychology of Leisure and Recreation[M]. China Travel & Tourism Press, 2010:225-245
- Li Chaoping , Shi Kan. THE INFLUENCE OF DISTRIBUTIVE JUSTICE AND PROCEDURAL JUSTICE ON JOB BURNOUT[J]. *Acta Psychologica Sinica*,2003.35(5):677-684]
- Linden W, et al. Physiological stress reactivity and recovery conceptual siblings separated at birth? [J]*Journal of Psychosomatic Research*, 1997, 42 (2): 117–135.
- Maccosham B. Leisure Lifestyle and Casual Leisure's Influence on Athletic Identity, Performance and Perception of Hockey in Dropout Amateur Junior Hockey Players[J]. *Nutrición Hospitalaria*, 2015, 25(2):299-303.
- Marine, A., Ruotsalainen, J., Serra, C., & Verbeek, J. Preventing Occupational Stress in Healthcare Workers[J]. *Cochrane Database of Systematic Reviews*, 2006, 4:29
- Maslach C, Jackson S E. The measure of experienced burnout[J]. *Journal of Organizational Behavior*, 1981, 2(2):99-113.
- Meijman T F, Mulder G. Psychological aspects of workload.[J]. *New Handbook of Work & Organizational Psychology*, 1998(2):5-34
- Shimazu A, Sonnentag S, Kubota K, et al. Validation of the Japanese version of the recovery experience questionnaire[J]. *Journal of Occupational Health*, 2012, 54(3):196-205.
- Sonnentag S and Bayer U V. Switching off mentally: Predictors and consequences of psychological detachment from work during off-job time[J]. *Journal of Occupational Health Psychology*, 2005, 10: 393–414.
- Sonnentag S, Fritz C. The Recovery Experience Questionnaire: development and validation of a measure for assessing recuperation and unwinding from work.[J]. *Journal of Occupational Health Psychology*, 2007, 12(3):204.

Wu Weijiong,Liu Yi,Xie Xuexian. Review and Prospect of Research on Recovery Experience Abroad[J]. Foreign Economic & Management, 2012, (11):44-51.]

ZHANG Sha, TANG Li, LI Hui-qin. The relationship among leisure, job burnout and mental health of train conductors[J]. Modern Preventive Medicine, 2015, 42(9):1576-1579

ZHAO Hong-jie, WU Bi-hu. A STUDY ON THE RELATIONSHIP BETWEEN BURNOUT, LEISURE COPING STRATEGIES AND PERCEIVED FREEDOM IN LEISURE FOR TAIWAN EXPATRIATES IN TAIWAN-CAPITAL ENTERPRISES[J]. HUMAN GEOGRAPHY, 2013(5):129-138.

Zheng Jianxiong. A Study on the Relationship between Leisure Life Style and Health of Urban and Rural Residents[J]. Research on Sports and Recreation, 2008,2 (3) :65-77