

Relationships between Occupational Stress and Work-Life Quality: the Moderator Role of Psychological Capital

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ABSTRACT

This study was aimed to investigate the moderator role of psychological capital relationships between occupational stress and work-life quality. In this cross-sectional study, the population were selected among all faculty members at the University of Bojnord. One-hundred and fifty faculty members were selected as samples. The study questionnaires were included occupational stress, psychological capital and work-life quality. The multiple regression analysis was examined research's hypothesis using SPSS software version 22. According to findings, the correlation coefficients between occupational stress and work-life quality ($r=-0.595$, $p<0.0001$) and between psychological capital and work-life quality ($r=0.421$, $p<0.0001$) which all were statistically significant. The interaction of occupational stress and psychological capital, beyond effects of the main variables, created 2.8% of the increased variance for the model which indicates these variables have a meaningful interaction with each other in predicting of work-life quality ($\Delta R^2=0.028$, $\Delta F= 6.15$, $p< 0.02$). The results showed the importance of psychological capitals moderator relationships between occupational stress and work-life quality among the faculty members. Therefore, in order to reduce the effects of occupational stress on work-life quality, it is recommended that universities enhance psychological capital of faculty members through practical training protocols.

KEYWORDS: *Faculty members, Occupational stress, Psychological capital, Work-life quality*

INTRODUCTION

Nowadays, people spend a lot of time in their organizations, their professional and private lives are so interconnected that the professional life has overpowered the private life and created a new term called quality of work-life [1]. The work-life quality relates to the employee's satisfaction of their needs including resources, activities, and outcomes [2]. Although the quality of work-life studies back then early 21st century, but there is no agreement about the real meaning of this term.

All researchers agree that work-life quality is a subjective and dynamic structure [3]. Many studies showed that employees with high work-life quality have more integrated organizational identity, higher job satisfaction and performance, and less turnover intentions and intentions job rotation [4].

Considering the importance of universities faculty members' work-life quality, whoever may provide better and more quality education and research at universities, therefore they are able to provide a significant part of the organizational mission of the higher education institutions [5]. Universities faculty

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members' work-life quality useful factors identification is essential. One of the variables which have a significant effect on the work-life quality is occupational stresses [5-9]. The phenomenon of stress has particular importance, increasingly and widely affects in the health of the practitioners in this industrialized world [10]. Occupational stress was defined as perceived occupational demands that are beyond the individual's ability to cope with them [10]. Studies frequently showed that in developed countries, chronic stress was related a lot of physical and mental diseases [11]. Hypertension, anxiety, burnout, and headaches are those examples of symptoms that can produce atrophy in the hippocampus [12]. Moreover, occupational satisfaction, occupational performance decrease [8] and the occupational exhaustion increase are some other consequences [7].

In the beginning of 21st century, Martin Seligman, American Psychological Association president, along with a group of psychologists, began a new movement in psychology which was named positive psychology [13, 14]. As long as positive psychology progressed, its applications became more in the workplace, and a new field emerged for positivity in the workplace which was called psychological capital [15]. Psychological capital was defined as a positive individual psychological state as follows. First, Self-confidence when try to succeed challenging tasks (self-efficiency). Second, Positive attribution about current and future success (hope). Third, Perseverance to achieve goals, when necessary, redirecting paths to goals (optimism) [4], Ability to tolerate difficulties, problems, preserve your tenure, and even go beyond it to achieve success (resilience) [16]. Researches were showed that psychological capital is a valuable resource that equips individuals with the ability to cope with stressful challenges [17].

Considering the importance of universities faculty members' work-life quality and considering that the teaching is one of the stressful occupations and faculty members experience physical and mental occupational stresses, due to high workload and working conditions, a research that evaluates the moderator role of psychological capital as a cognitive structure in the relationship between occupational stress and work-life quality was remain. Therefore, the main purpose of the present study was to assess how psychological capital and its components (self-

efficiency, hope, optimism, and resilience) can moderate the relationship between occupational stress and work-life quality of faculty members at the University of Bojnord.

MATERIALS AND METHODS

SAMPLE

Study population samples were selected among the University of Bojnord faculty members, Iran, (N= 172). Simple random sampling method was used to select 150 employees. Accordingly, the questionnaires individually were asked to be completed. Based on the questionnaire criteria, respondent should have had at least one year work experience. Also, participants in this study were asked to sign a written informed consent.

MEASURES AND PROCEDURE

Quality of work-life questionnaire: This questionnaire was developed by Walton (1973), and examines 27 items based on Likert scales (1 very low - 5 very high). The questionnaire was designed to ask: adequate and fair compensation, safe and healthy work environment, growth and security, constitutionalism, social relevance, total living space, social integration, development of human capacities [18]. Walton has reported a reliability coefficient of 0.88 for the whole questionnaire. This questionnaire has been used extensively in Iran, and its reliability and validity have been confirmed. Nastiezaie et al.[18] confirmed the content validity of this questionnaire. Also, Ghaleei et al.[8] reported reliability 0.78 using Cronbach's alpha coefficient. In the present research, the reliability coefficient was calculated using Cronbach's alpha coefficient of 0.91.

Psychological capital questionnaire: Luthans et al. [15] developed this questionnaire to analyse: hope, resilience, optimism, and self-efficiency of respondents. The questionnaire consists of 24 questions; each subscale consists of 6 items and participants respond to each question based on Likert 6 degree scales (1 strongly disagree – 6 strongly agree), whereas questions 23, 20, and 13 were scored

in reverse order. Finally, the sum of the related score to components is considered as the total score of psychological capital. Luthans et al.[15] reported desirable validity of this questionnaire using the confirmatory factor analysis ($X=24.6$, $CFI = 0.97$, $RMSEA = 0.08$). The questionnaire reliability was reported 0.90 by Luthans et al. [15]. Hashemi Nosrat Abad et al. [23] obtained reliability of the psychological capital questionnaire based on Cronbach's alpha of 0.85. In the present study, the reliability of the whole scale was estimated to be 0.82 using Cronbach's alpha test, and for each of the components of self- efficiency, hope, optimism, and resilience were estimated 0.77, 0.69 , 0.70 and 0.68 , respectively.

Occupational stress questionnaire: United Kingdom's Health and Safety Executive (HSE) [24] designed this questionnaire to measure occupation related stress; it examines 35 items that evaluate seven components of demand, control, managerial support, peer support, relationships, role, and changes. The questionnaire has a 5- degree Likert scale (5 never - 1 always).The scoring of the components of demand and communication is reversed. In this questionnaire, a higher score indicates higher occupational stress [9]. Marz Abadi et al. [24] confirmed the validity and reliability of this questionnaire. In their research, the correlation coefficient of HSE and GHQ questionnaires was calculated - 0.48. The results also

showed a strong correlation between obtained factors from factor analysis and the items of the occupational stress questionnaire 0.92, 0.73, 0.75, 0.63, 0.87, 0.85, and 0.22, respectively regarding role, relationships, managerial support, peer support, control, demand, changes. The reliability of this questionnaire was reported 0.78 using alpha Cronbach method. In the present study, the reliability of this questionnaire was obtained 0.90 using alpha Cronbach method.

Ethical considerations: The study was approved by the Ethical Review Committee of the University of Bojnord. Additionally, participation was anonymous, voluntary, and written informed consent was obtained before administering questionnaires.

Statistical analysis: In this study, descriptive statistics indicators such as mean and standard deviations were used to analyse data and inferential statistics indicators. Pearson coefficient correlation and moderated regression analysis (hierarchical regression) were used to assess the research hypotheses.

RESULTS

The participants were selected between 29 to 45 years old ($M = 34.60$, $SD = 5.27$), job experience 1 to 21 years ($M = 5.87$, $SD = 5.21$). Demographic characteristics of participants have shown in Table 1.

Table 1. Demographic characteristics of the participants (N=150)

Frequency Percentage (%)		
Sex	Male	58.6%
	Female	41.4%
Marital status	Married	77.6%
	Single	22.4%
	University graduates	-
Employee status	Master degree	19%
	Phd	81%
	Official	15.5%
	contractor	84.4%
	Contract	-

Table 2. Descriptive statistics for the study variable

	correlations								
	\bar{X}	SD	1	2	3	4	5	6	7
Occupational stress	91.42	16.18	1						
Psychological capital	104.70	16.09	-0.33	1					
Self-efficiency	27.89	5.39	-0.46	0.43	1				
Hope	26.96	5.46	-0.29	0.96	0.82	1			
Optimism	24.08	3.34	-0.35	0.80	0.55	0.73	1		
Resilience	25.83	3.95	-0.34	0.86	0.62	0.79	0.66	1	
Work-life quality	83.73	13.94	-0.59	0.42	0.27	0.45	0.38	0.39	1

Table 3. The results of hierarchical regression

	R	R ²	ΔR^2	ΔF	B	SE _B	β
Occupational stress	0.59**	0.35	0.35**	59.24	-0.41	0.06	-0.48**
Psychological capital	0.64**	0.40	0.05**	9.95	0.19	0.06	0.21**
Self-efficiency	0.60**	0.37	0.017*	2.93	0.23	0.21	0.09*
Hope	0.66**	0.43	0.085**	16.15	0.70	0.19	0.27**
Optimism	0.62**	0.39	0.036*	6.22	1.04	0.33	0.25**
Resilience	0.62**	0.39	0.041**	7.32	0.68	0.27	0.19*
Occupational stress × Psychological capital	0.66**	0.43	0.028**	5.21	0.007	0.003	0.17*
Self-efficiency	0.62**	0.39	0.022*	3.79	0.019	0.010	0.15*
Hope	0.67**	0.45	0.013	2.42	0.015	0.010	0.12
Optimism	0.66**	0.43	0.048**	8.84	0.048	0.016	0.22**
Resilience	0.66**	0.44	0.044**	8.31	0.040	0.014	0.21**

* $p < 0.05$ ** $p < 0.01$

Descriptive statistics: Descriptive findings consisting means, standard deviations, and internal correlation of the research variables have presented in Table 2. Coefficients correlation between occupational stress

and work-life quality ($r = -0.595$, $p < 0.0001$), psychological capital and work-life quality ($r = 0.421$, $p < 0.0001$) were denoted in Table 2.

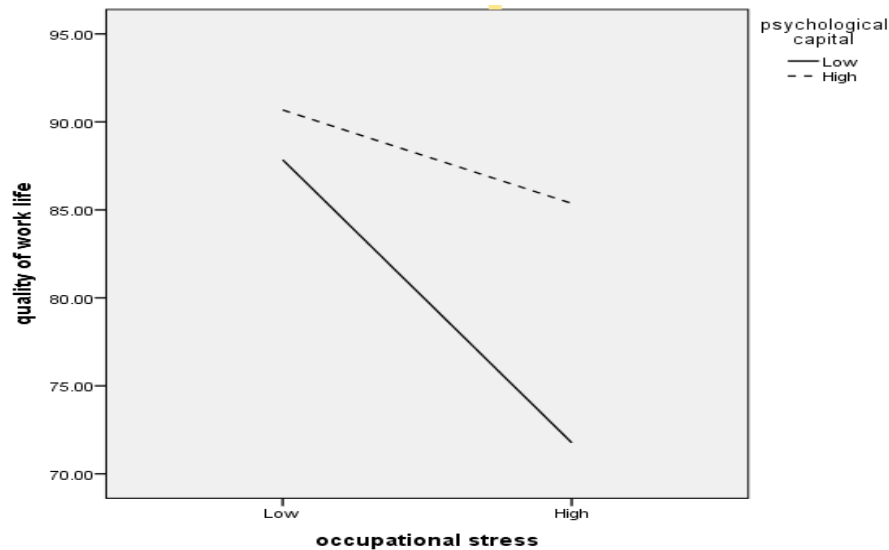


Fig 1. Interactive graph of quality of work life and occupational stress

The slope of the regression lines related to the relationship between occupational stress and the work-life quality in faculty members with low and high psychological capital was not equal as shown in Figure 2. The more slope of the low psychological capital indicates a more negative relationship between occupational stress and work-life quality in this group. As shown in Figure 1, among faculty members with high psychological capital, the average of work-life quality in participants with low occupational stress was higher than those with higher occupational stress. Also, the average work-life quality in employees with low psychological capital that has lowers occupational stress was higher than those who have higher occupational stress.

DISCUSSION AND CONCLUSION

This study was aimed to investigate the moderator role of psychological capital relationships between occupational stress and work-life quality of faculty members at the University of Bojnord. The results showed a significant negative relationship between occupational stress and work-life quality. This finding is consistent with the results of some researches [5, 7-9]. To explain this finding, it should be stated that if the work is carried out in a healthy psychological state and with stretching and cooperating, it leads to a rise in the work-life quality

and growth of positive attitude towards work and the environment. This feeling, in addition to meeting the needs and realizing individual and organizational goals, leads to physical and mental health, loyalty, and, finally, increasing the effectiveness of the organizations [5].

The findings also showed a significant positive relationship between psychological capital and quality of work-life. This finding was consistent with the results of Nafei [19], Nguyen [20], Nastiezaie et al. [18] studies. A superficial level of psychological capital and its components may provide a situation where employees can provide the requirements of survival, belonging, and knowledge and improve their performance in the workplace [19]. In other words, when individuals can be more satisfied with their quality of work-life they can succeed in challenging tasks (self-efficiency); they can draw a path to reach the goal, and they have a sense of agency ability and influence to achieve the goal (hope); they consider the excellent and desirable events as permanent and sustained, and adverse events as random and incidental (optimism); and finally they can return to a positive state, after confronting a major problem or a difficult or a stressful event (resilience) [18].

The findings also showed that psychological capital could moderate the relationship between occupational stress and the quality of work-life. Psychological capital may provide an essential reservoir of positive psychological resources that can lead to reduced occupational stress [27]. Based on the broaden-and-build positive emotions theory, positive psychological resources and positive emotions help the people by expanding the thinking and action capacity of individuals, to come up with external environmental stresses by adopting a positive and flexible outlook to the outside environment [28-29].

The results showed that only three components of self-efficiency, optimism, and resilience can play a moderating role. Indeed, when the workplace was stressful, people who are high-level in self-efficiency, have more ability to mobilize their required resources, they also can upgrade themselves and get the required support to overcome pressures resulting from job demands and this can significantly increase the quality of their work-life [15, 30-31]. Moreover, optimists expected to continue to work hard and actively manage their problems in stressful work environments [33]; in such circumstances, without such experiences, their quality of work-life dwindled [15, 30-31]. Resilient people have more ability to adapt and harmonize, as they have features such as openness to experience, flexibility against changing demands, and emotional stability against hardships [34]. These people tend to protect themselves from negative consequences that it creates as a result of occupational stress which can improve the quality of their work-life [15, 30-31].

However, the findings of this research did not confirm moderator role of the hope component. This finding was inconsistent with the research results of some previous studies [15, 30-31] and was consistent with the results' of Golparvar et al. study [35]. It was expected that individuals high level of hope will protect them from uncontrollable, vulnerable, and unpredictable perceptions in stressful environments [36]. According to Golparvar et al. finding [35] positivist structures such as hope are not likely to have a positive effect in any situation and position, but their positive function is more significant when there are a context and texture for their practical use. Therefore, the obtained result, in addition to being self-reporting exaggerated by the participants, can be due to the

context and academic environment that has led in the stressful working environment. Similarly, individuals do not seek new paths to reach the goals (the component of hope paths) and also do not believe in their capabilities to cross the selected paths (the component of the hope sources though).

Having considered all above, universities must equip their faculty members with psychological capital in order to improve the quality of work-life of their faculty members in the face of occupational stress, because psychological capital and its components can be considered as positive psychological resources that help faculty members to adopt a positive outlook on work and life events in the face of pressures and stresses of the workplace [12]. It is suggested that universities strengthen the components of psychological capital through educational-practical protocols and thereby they able to reduce occupational stress, promote quality of work-life.

This study, like all other studies, was encountered some limitations that future researches should pay attention to. First, the design of the present study i.e., correlation, did not prove the causality of a kind of prediction. Future researches can use a longitudinal plan to determine causal relationships. Second, the results of this study were not necessarily generalizable to all universities with different characteristics. Another universities and different jobs were recommended to implement such study. Third, due to researcher's conditions, self-report questionnaires were used to collect data and these tools have their limitations.

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CONFLICT OF INTEREST

There is no conflict of interest for any of the authors.

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