ORIGINAL ARTICLES

Job resources, personal resources, and work engagement of healthcare workers from Romania

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ABSTRACT

Objectives. The aim of this study was to investigate a series of possible predictors for the work engagement of Romanian healthcare workers.

Materials and methods. A sample consisting of 222 Romanian healthcare employees from a hospital completed a questionnaire measuring work engagement, six job resources (autonomy and control; supervision, recognition, and feedback; training, professional development, and continuing education; staffing and time; technology; social support), and two personal resources (self-efficacy and optimism).

Outcomes. Training, professional development, and continuing education were the job resources that correlated most strongly with work engagement. However, of all study variables, optimism, a personal resource, correlated most strongly with work engagement. All job resources and personal resources included in the study explained 31% of the variance of work engagement.

Conclusions. According to the research results, it is possible for specialists in the field of work psychology to increase the level of healthcare employees' work engagement by increasing their job and personal resources.

Keywords: work engagement, healthcare employees, hospital, job resources, personal resources

INTRODUCTION

Work engagement, representing a fulfilling work-related psychological state that is characterized by vigor, dedication, and absorption (1), is an indicator of wellbeing at work. It is related with a series of positive outcomes in healthcare, including work performance (2), quality of care, and patient safety (3). Therefore, it is important to identify its antecedents in order to develop organizational interventions and public policies that support this positive state in employees from the healthcare sector. The aim of this study was to investigate a series of possible predictors for the work engagement of Romanian healthcare workers. Based on the job demands-resources model (JD-R) (4), we expected both job resources and personal resources to be positively related with work engagement. Six job resources (autonomy and control; supervision, recognition, and feedback; training, professional development, and continuing education; staffing and time; technology; social support) and two personal resources (self-efficacy and optimism) were considered.

The JD-R model (4) is a theoretical framework that explains the relationships between job characteristics and well-being. According to the model, job resources can generate a motivational process that leads to higher levels of work engagement because they provide meaningfulness at work and they meet employees' basic psychological needs. Job resources represent the physical, psychological, social or organizational aspects of the workplace that support the achievement of work goals, reduce job demands or stimulate personal growth, learning, and development (4). Previous studies have supported the positive link between job resources and work engagement in healthcare. For example, Hakanen et

al. (5) found in a longitudinal study of more than 2,000 dentists that job resources influence employee work engagement. In another study of 1,600 employees from a public health organization, researchers found that job resources predict work engagement (6).

Another assumption of the JD-R model (4) is that personal resources can play a similar role to that of job resources in predicting work engagement. Personal resources refer to positive self-beliefs and to the employees' sense of control over the work environment. Such resources are self-efficacy (confidence in one's abilities) or optimism and previous studies indicated that they are positively associated with well-being at work (7). We expect to replicate these findings in the population of Romanian healthcare employees. We expect positive associations between work engagement and both job resources (autonomy and control; supervision, recognition, and feedback; training, professional development, and continuing education; staffing and time; technology; social support) and personal resources (self-efficacy and optimism).

MATERIALS AND METHODS

Participants and procedure

Healthcare employees from a public hospital were asked to complete a questionnaire. 253 questionnaires were filled out. Due to missing cases, 31 respondents were excluded from the study. Following the exclusion of these cases, 222 employees from the Romanian medical sector participated in the study. They had a mean age of 42.95 years, with a standard deviation of 9.54. Our sample consisted of 170 (76.6%) women and 52 (23.4%) men. Of the 222 participants, 15 (6.8%) reported a tenure of 0-1 years, 19 (8.6%) a tenure of 1-3 years, 19 (8.6%) a tenure of 1-3 years, 37 (16.7%) a tenure for 5-10 years, and 132 (59.5%) reported over 10 years of work experience. The sample consisted of 72 (32.4%) physicians, 130 (58.6%) nurses, and 30 (9%) reported having another occupation. Descriptive data analysis was performed using IBM SPSS Statistics 23. For zero-order correlations, jamovi 0.8.6.0 was used. Finally, the study hypothesis was tested using MPlus Version 7.

Measuring instruments

Job resources were measured with the job resources in nursing scale (8) and with the job demands-resources questionnaire (JDRQ) (9). Autonomy and control was measured with 4 items (e.g., "I am able to modify my daily duties or the type of work that I do.") from the job resources in nursing scale (8) with a scale from 1 (strongly disagree) to 5 (strongly agree). The internal consistency of the

scale, calculated for the present study sample, was Cronbach's alpha = .66. Supervision, recognition, and feedback was measured with 4 items (e.g., "I feel validated by my supervisor for a job well done.") from the job resources in nursing scale (8) with a scale from 1 (strongly disagree) to 5 (strongly agree). The internal consistency of the scale, calculated for the present study sample, was Cronbach's alpha = .74. Training, professional development, and continuing education were measured with 4 items (e.g., "I am able to access an adequate number of in-services or continuing education activities.") from the Job Resources in Nursing Scale (8) with a scale from 1 (strongly disagree) to 5 (strongly agree). The internal consistency of the scale, calculated for the present study sample, was Cronbach's alpha = .73. Staffing and time were measured with 4 items (e.g., "There are enough staff members in my work setting to get the job done.") from the job resources in nursing scale (8) with a scale from 1 (strongly disagree) to 5 (strongly agree). The internal consistency of the scale, calculated for the present study sample, was Cronbach's alpha = .72. Technology was measured with 4 items (e.g., "I am able to provide better care because of the information systems and technology available to me.") from the job resources in nursing scale (8) with a scale from 1 (strongly disagree) to 5 (strongly agree). The internal consistency of the scale, calculated for the present study sample, was Cronbach's alpha = .72. Social support was measured with 3 items (e.g., "If necessary, can you ask your colleagues for help?") from the job demands-resources questionnaire (9) with a scale from 1 (strongly disagree) to 5 (strongly agree). The internal consistency of the scale, calculated for the present study sample, was Cronbach's alpha = .80.

Personal resources were measured with the Job Demands-Resources Questionnaire (9). Self-efficacy was measured with 4 items (e.g., "Thanks to my resourcefulness, I can handle unforeseen situations."), on a scale from 1 (absolutely wrong) to 4 (absolutely right). The internal consistency of the scale, calculated for the present study sample, was Cronbach's alpha = .86. Optimism was measured with 4 items (e.g., "I usually expect the best in uncertain times.") on a scale from 1 (absolutely wrong) to 4 (absolutely right). The internal consistency of the scale, calculated for the present study sample, was Cronbach's alpha = .90.

Work engagement was measured with the short version of Utrecht Work Engagement Scale (10). The scale includes a total of 9 items measuring 3 distinct dimensions: vigor (3 items; e.g., "At my work, I feel bursting with energy."), dedication (3 items, e.g., "I am proud of the work that I do."), and absorption (3 items; e.g., "I get carried away when I am working."). Responses for each item were measured on a

scale from 0 (never) to 6 (always). The internal consistency of the scale, calculated for the present study sample, was Cronbach's alpha = .87.

OUTCOMES AND DISCUSSSION

Descriptive analysis

Table 1 depicts the minimum and maximum values, the mean, and the standard deviation for the variables included in the study. In the case of job resources, the lowest values were identified for staffing and time.

TABLE 1. Descriptive statistics for the study variables (N = 222)

	Minimum	Maximum	Mean	Standard deviation
Autonomy and control	1.25	5.00	3.22	.79
Supervision, recognition, and feedback	1.00	5.00	3.31	.84
Training, professional development, and continuing education	1.25	5.00	3.43	.82
Staffing and time	1.00	5.00	2.72	.89
Technology	1.25	5.00	3.51	.79
Social support	1.67	5.00	3.84	.96
Self-efficacy	1.00	4.00	3.45	.61
Optimism	1.25	4.00	3.74	.99
Work engagement	1.11	6.00	4.65	.96

Zero-order correlations between study variables

Table 2 depicts the zero-order correlations between job resources, personal resources, and work engagement. Training, professional development, and continuing education were the job resources that correlated most strongly with work engagement. However, of all study variables, optimism, a

personal resource, correlated most strongly with work engagement.

Hypothesis testing

To test the study hypothesis, Bootstrap method on structural equation modeling (SEM) with 5000 samples was used. A model in which both job resources and personal resources predicted work engagement was tested. The structural model included: job resources as a latent variable (loaded by autonomy and control, supervision, recognition, and feedback, training, professional development, and continuing education, staffing and time, technology and social support), personal resources as a latent variable (loaded by self-efficacy and optimism), and work engagement, also as a latent variable (loaded by dedication, vigor and absorption). The tested model showed good fit indicators (χ^2 = 41.19, df = 32, RMSEA = .04, CFI = .99, TLI = .98, SRMR = .04). The relationship between job resources and work engagement was positive (β = .20, p <.05). Also, the relationship between personal resources and work engagement was positive (β = .46, p <.01). The model explained 31% of the variance of work engagement (R^2 = .31). The results are shown in Figure 1.

Our results indicated that both job resources and personal resources are positively related with the work engagement of Romanian healthcare workers. Our findings are in line with previous studies that also indicated positive links between these variables (5,6,7).

This study has some limitations. First, it was a cross-sectional study, therefore we cannot draw causal conclusions about the relationships between variables. Second, self-report questionnaires were used. Third, all participants were employees of a single hospital. Future studies could compensate for these limitations.

TABLE 2. Zero-order correlations between job resources, personal resources, and work engagement (N = 222)

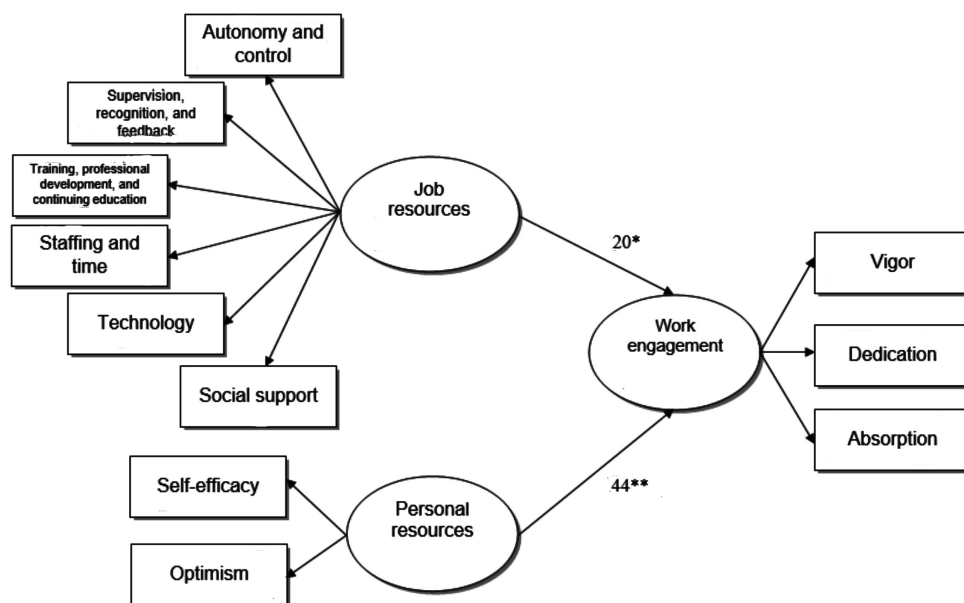|	1	2	3	4	5	6	7	8
1. Autonomy and control								
2. Supervision, recognition, and feedback	.32***							
3. Training, professional development, and continuing education	.38***	.50***						
4. Staffing and time	.31***	.30***	.43***					
5. Technology	.20**	.35***	.60***	.36***				
6. Social support	.08	.15*	.12	.00	.15*			
7. Self-efficacy	.12	.01	.13	.04	.20**	.03		
8. Optimism	.24***	.23***	.28***	.25***	.30***	.08	.38***	
9. Work engagement	.25***	.26***	.30***	.22***	.26***	.14*	.26***	.37***

* p < .05, ** p < .01, *** p < .001

FIGURE 1. Structural model for the relationships between job resources, personal resources, and work engagement

CONCLUSIONS

According to the research results, it is possible for specialists in the field of work psychology to increase the level of healthcare employees' work engagement by increasing their job and personal resources.

Note
The first two authors contributed equally; their order of authorship is arbitrary.

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