

# Showing Up at Work ill: Relationship with Job Satisfaction and the Moderation Effect of Job Autonomy

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**Abstract: Background/Objectives:** Presenteeism refers to showing up at work ill. Presenteeism phenomenon in the workplace has been overlooked. Many previous studies have been more focused on recognizing the antecedents of presenteeism neglecting important attitudinal outcomes. This study examined the association between presenteeism and job satisfaction, which is one of the key attitudinal work factors as a dependent variable, and focused on the moderation effect of job autonomy which would provide a mechanism to mitigate an adverse effect of performance and productivity in organization. **Methods/Statistical analysis:** 435 data samples were used for the analysis of this empirical study. These samples were collected from various industries in different organizations in Korea. Structural Equation Model (with LISREL 8.54) was used for CFA and the model fit test as well as SPSS 23 to administer Hierarchical regression analysis and the moderated regression analysis of Job Autonomy. **Findings:** The research revealed the negative impact of presenteeism on job satisfaction ( $r = -.33, p < .001$ ). And hierarchical regression analysis found that job autonomy played a moderating role in the relation between presenteeism and job satisfaction ( $r = -.11, p < .01$ ). This negative relationship was stronger when job autonomy was high, but not when it was low. **Improvements/Applications:** Given in the findings aforementioned, manager and management need to pay more attentions to this counterproductive behavior – presenteeism – to organization and to pay further efforts finding practical policies or initiatives such as in-house health consultation program and sick leave policy. And more job autonomy in scheduling work and deciding work method should be granted to employee for improving job satisfaction. To better understand the implications of presenteeism behavior on outcome variables, longitudinal analysis is recommended.

**Keywords:** presence while sick, showing up at work ill, presenteeism, job satisfaction, job autonomy

## I. INTRODUCTION

Recent episodes of pandemic diseases such as SARS epidemic in 2003, H5N1 influenza and MERS (Middle East Respiratory Syndrome) Coronavirus etc. intrigued and created public interest, but considerably less concentrated the viewpoints of attendance dynamics-attending work while sick. In spite of the many occasions that agony caused by colleagues at the workplace showing conceivable contagious indication as a result of severe sickness was often appeared in the mass-media, more refined and more predominantly

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everyday happening examples of coming to work ill likely cost the economy increasingly and cause more harm to the aggregated nature of individual health quality.

Unequivocally suggested in the current literature is the premise that presenteeism is on the increase in present organizations because workers in current organizations under the age of uncertainty may be more likely to pay and spend more effort and time at work in spite of sick, due to the rises in job insecurity and demands from workplace [1]. Especially people working in place and jobs where clients rely on them (e.g., sales forces, government officers, nurses, occupational therapist) and where there is no one to replace them (e.g., scheduled duty workers in call centers) might be more likely to attend while sick rather than not to attend [2]. However, we do not distinguish if the sorts and severity of diseases vary between those attending ill and those who remain away. Hemp recommends that presenteeism, by nature, is likely to be the comparably moderate medical problem [3]. In addition, the findings of Kivimaki et al. [4] caution that periodic presenteeism may prompt more significant medical problems at the end of the day. While presenteeism could also be considered more positively in such a behavior as OCB (organizational citizenship behavior) [5], principal view is that presenteeism will sooner or later be adverse and dysfunctional as it will cause the depreciation of individual health and performance as well as productivity as a whole.

Despite the fact that there have been many empirical researches of presenteeism, principal inquires remain, both about its causes and its consequences. Existing studies have been even more interested in labelling the predominance of presenteeism, or the components that prompt it (e.g., Grinyer & Singleton [6]). Thus in this study we tried to identify the consequence of presenteeism with one of the attitudinal work factors, job satisfaction.

Job satisfaction has been received research attention as one of the key factors affecting individual performance as well as organizational effectiveness. Whereas coming to work sick, commonly-called presenteeism [2,5] has also important implications as it is a counterproductive factor to employee health as well as employees' perceived job satisfaction [7]. And with the witness of the meta-analysis done by Miraglia & Johns [8], which was found that higher level of job satisfaction ( $\beta = .18$ ) was associated with a higher possibility of executing presenteeism. However, to be explained by causality principle,



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presenteeism is predicted to reduce organizational justice and work engagement, eventually it is likely to decrease the perceived job satisfaction. Therefore, we formulated the following hypothesis:

Hypothesis 1. Presenteeism will be negatively related to job satisfaction.

And we were also interested in identifying what factor could alleviate the adverse effect of presenteeism to individual attitudinal outcomes. One of the work context factors – job autonomy – was chosen as it might function as constraints on presence when sick and less social, work-adjustable facets of presenteeism. In the organizational behavior literature, employees are motivated when “the task provided the employees with substantial autonomy for deciding about how they do the work – in effect, the employee ‘owns’ the task and is responsible for the work outcomes.” [9] For example, people with moderate medical problem may go to work when they believe they can properly manage it on their own ways or when the individual advantages of doing such surpass the costs. Johansson & Lundberg [10] recommended that workers who have more liberty to modify their work planning or output will probably attend work sick, on the grounds that their works offer what the researchers named “adjustment latitude.” This proposes that larger job autonomy might induce the ill to come to work, showing presenteeism, yet to decrease their performance and productivity at the same time, working themselves back and forth considering their individual health [5]. However, using 2,810 samples from wage and salaried employees an empirical survey performed by Thompson & Prottas [11], they also found that job autonomy was positively related to job satisfaction and with the aforementioned results, job autonomy given to each employee is predicted to moderate the negative relationship between job satisfaction and presenteeism. Thus we hypothesize as below:

Hypothesis 2. Job autonomy is positively related to job satisfaction.

Hypothesis 3. The negative relation between presenteeism and job satisfaction will be moderated by job autonomy such that the negative relationship will be stronger when job autonomy is higher.

Therefore, the aim of the current study is to unravel the underlying effect of presenteeism on job satisfaction and to examine if job autonomy would play as a mitigating mechanism between independent and dependent variables in Korean workplace. Hypothesized model is shown in Figure 1 below.

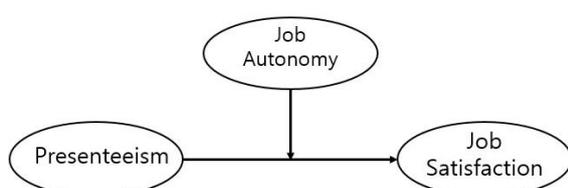


Fig 1. Hypothesized Model

## II. MATERIALS AND METHODS

### 2.1. Research Sample

To test our hypothesized model, data was collected from full-time employees working in diverse industries of 29 different organizations such as healthcare, banking & finance, IB, small & medium sized corporates, and municipal governments across Korea in 2017. Prior to the regular survey, 92 samples were collected for pre-test from August through September 2017. With the findings from the pre-test, the questionnaire items were refined and revised accordingly and administered the regular survey thereafter for approximately two weeks. 533 questionnaires were initially distributed and 451 data sets were collected. Among the collected data sets, then we finalized and eventually used the total of 435 completed samples for our study after removing any data unfaithfully completed or any survey items omitted. This cross-sectional questionnaire survey was conducted with 5 Likert Scale and rated on self-reported type. 47.6% of male and 52.4% of female were reported in the study samples, with 37.3 (SD = 9.2) of Mean age, .52 (SD = .50) of Mean female, and 9.3 years (SD = 5.8) of Mean job tenure. These all were used as control variables.

### 2.2. Measures

The current hypotheses were empirically tested with the self-reported cross-sectional data. Except for the demographic variables, all the items were rated on a 5point Likert scale and ranged from 1 to 5 (strongly disagree to strongly agree) unless otherwise indicated. Questionnaire survey was administered with Korean version. The measures for assessing the act of presenteeism behavior, job satisfaction, job autonomy, and demographic and control variables were represented with satisfactory reliability and validity in previous studies.

#### 2.2.1. Presenteeism

To assess the act of presenteeism behavior, we employed SPS (Stanford Presenteeism Scale) as the scale items developed by Turpin et al. [12]. Although all the measures in the current study had already been endorsed with satisfactory reliability and validity, we reaffirmed those of presenteeism because the measure to assess the variable was a relatively new construct to Korea. The following steps were taken; (1) the original version was translated into Korean in the manner to adapt local organizational culture as well as the turn of expression, (2) and verified the translated version by two professors and a Ph.D. candidate student with the relevant specialty, (3) thereafter, back translation was performed by a bilingual specialist,

(4) and ‘Semantic Equivalence Test’ was administered by having seven graduate school students with English proficiency rated the verified survey items. The original survey items consisted of 10 items and participants rated each marker of presenteeism based on the following instruction such as “Were you able to focus on achieving work goals?” and “Were the stresses of your job hard to handle?” But one item was excluded for the study analysis after conducting EFA and CFA because the factor loading value was not exceeded .



4. Therefore, 9 items were finally used for the current study.

**2.2.2. Job Satisfaction**

To assess perceived job satisfaction, we used five items adapted from the Job Satisfaction Index by Brayfield & Rothe [13] and two items were reversely measured. Respondents were solicited to rate on the five statements such as “I feel fairly well satisfied with my present job,” and “I am often bored with my job.”

**2.2.3. Job Autonomy**

Job autonomy was assessed using nine questionnaire items developed by Morgeson & Humphrey [14]. This already validated measure with satisfactory reliability and validity consists of three autonomy sub-factors – work methods, work scheduling, and decision-making. Each sub-factor has three questionnaire items, which participants asked to rate each marker of job autonomy based on the following instruction such as “The job allows me to make my own decisions about how to schedule my work.”, “The job gives me a chance to use my personal initiative or judgement in carrying out the work.”, and “The job allows me to make decisions about what methods I use to complete my work.”

**2.2.4. Control Variables**

In our analysis, we controlled three demographic variables – age, gender, and tenure – because the previous studies indicated that older [15], female [16], and longer tenure [17] employees are more likely to go to work while sick. The information on age, gender (female = 1, male = 0; dummy coded), and tenure was recorded and these were included in control variables. And also we used attendance management as an additional control variable because it may affect to the act of presenteeism as suggested by Iverson & Deery [18] and Deery et al. [19]. Attendance management was measured by two items and included “Management is very strict about unscheduled days off” and “When you are scheduled for work management really expects you to be there.”

**Table 1. Summary of Models Comparison**

Models	$\chi^2$	df	NFI	CFI	IFI	SRMR	RMSEA
Three-factor model	840.91	227	.94	.95	.95	.051	.083
One-factor model	2115.7	230	.84	.85	.85	.13	.17

The model fits better when the higher NFI, CFI, and IFI are and the lower SRMR and RMSEA are [20,23,24]. Thus the measurement model of the three-factor exhibited acceptable fit: NFI (normed-fit index) of .94, CFI (comparative-fit index) of .95, IFI (incremental-fit index) of .95, SRMR (standardized root-mean-square residual) of .051, and RMSEA (root-mean-square error of approximation) of .083. Overall, these indices showed acceptable fit. This supports that the three-factor model fitted the data considerably better than the alternative model (one-factor), thus the three-factor model better supports for the construct validity of our research model.

The reliabilities of the multiple-item measures was computed by estimating Cronbach’s . All the scales in the current study showed acceptable reliabilities (presenteeism =

**2.3. Data Analysis**

The statistical analyses in the current study comprised of (1) EFA and CFA to assess the validities of the main survey items, (2) model fit indices computed, (3) reliability test for the internal consistency of the measures utilized, (4) correlational analysis and descriptive statistics, (5) Mean Centering conducted to resolve any possible multi-collinearity, (6) and hierarchical regression analysis to assess the hypotheses. Analyses were carried out on SPSS 23 and LIREL 8.54 [20].

To test the validities of each variable, Exploratory Factor Analysis with PCA (Principal Component Analysis) and Varimax rotation was administered. In return, all survey items showed more than .4 in factor loadings, so all the items have acceptable validities because they all fulfill the condition that to be acceptable the factor loading value should be over .4 [21].

To further assure because one of the study variables in the present study, presenteeism, was a distinct construct and to ensure any potential bias of CMV (common method variance) caused no erroneous conclusion, we conducted Confirmatory Factor Analysis (CFA) on presenteeism. Among the ten survey items on presenteeism one item was deleted due to the fact that the factor loading value was less than .4, which did not meet the criteria (.4) suggested by Stevens[21].

Prior to the analysis, the variables in the present study were reviewed for multi-collinearity by checking the VIF (Variance Inflation Factors). Because the VIFs of all variables included in the regression analysis showed less than 2.49 and presented not beyond the threshold of 10, no multi-collinearity issues exist.

And to assess the model fit in the current study, we also compared a hypothesized three-factor model (i.e., presenteeism, job satisfaction, and job autonomy) with Harman’s Single Factor Test [22] (combining all three variables) using LIREL 8.54. The results are presented in Table 1 below.

.781, job satisfaction = .851, and job autonomy = .948), which exceeded .7 as suggested by Nunnally & Bernstein [25].

**III. RESULTS AND DISCUSSION**

Table 2 presents correlations and detailed statistics for the study variables. The results were reported that presenteeism was negatively and significantly associated with work factor - job satisfaction (r = -.343, p < .001). That is, increased presenteeism is correlated with decreased job satisfaction. This result was identical with the results of Caverley et al. [26]. Furthermore, presenteeism was correlated negatively with job autonomy (r = -.373, p < .001), age (r = -.176, p < .001), and tenure (r = -.182, p < .001),



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but positively with female ( $r = .170, p < .001$ ). These can be interpreted that when people behave more presenteeism, job autonomy would be decreased, vice versa. And older employees rather than younger ones, female, and people who serve longer year would have more likelihood of attending work while sick. And job satisfaction also showed significantly positive correlation with job autonomy ( $r = .362, p < .001$ ) but negative correlation with attendance management ( $r = -.104, p < .05$ ). These can also be interpreted that given more job autonomy would increase the job satisfaction, but the more attendance management from company is perceived, the lower job satisfaction will be.

To test the hypotheses, hierarchical regression analysis was

carried out. The findings are reported as below Table 3. The standardized regression coefficients were reported in the body of this study.

Taking Step 2, consistent with our expectation, presenteeism was negatively related to job satisfaction ( $\beta = -.33, p < .001$ ). This supported Hypothesis 1 as the act of presenteeism decreases the perceived job satisfaction of employees. To assess the hypothesis 2, in Step 3 job autonomy was positively related to job satisfaction ( $\beta = .27, p < .001$ ). These two results support the notion that when the lower presenteeism is and the higher job autonomy is given, the higher job satisfaction is perceived. Thus hypothesis 2 was also supported.

**Table 2. Means, Standard Deviations and Correlations (N = 4351)**

	Mean	SD	1	2	3	4	5	6	7
1. Presenteeism	2.86	0.51	1						
2. Job Satisfaction	3.14	0.69	-.343***	1					
3. Job Autonomy	3.29	0.80	-.373***	.362***	1				
4. Age <sup>2)</sup>	37.29	9.22	-.176***	.104*	.170***	1			
5. Gender	0.52	0.50	.170***	-.130**	-.041	-.351***	1		
6. Tenure	9.27	5.81	-.182***	.083	.154**	.761***	-.286***	1	
7. Attendance Management	3.45	0.98	.042	-.104*	-.076	.028	.090	.037	1

1) \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , zero-order Pearson correlations

2) female = 1, male = 0

Prior to assess the moderation hypothesis, we computed all the values from all the variables (independent, moderating and control variables) by Mean-Centering and checked the Variance Inflation Factors (VIF) because there is a good likelihood of having possible multi-collinearity issues as the independent and the moderating variable were multiplied in order to verify the moderation effect. We included the interaction between mean-centered presenteeism and job autonomy, which explained an extra 1.3 percent variance of job satisfaction and presented the result regarding the

moderation effect predicted in hypothesis 3. As a result, Step 4 in Table 3 indicates job autonomy played a moderation role in the relation between presenteeism and job satisfaction ( $\beta = -.11, p < .01$ ). Therefore, the result was consistent with hypothesis 3. The VIF values for all variables contained in this regression analysis were shown  $< 2.495$  and not beyond the threshold of 10, so there is no multi-collinearity issue. And while controlling for control variables, independent and moderating variables, all the effects to job satisfaction were not significantly changed.

**Table 3. Hierarchical Regression Analysis on Job Satisfaction**

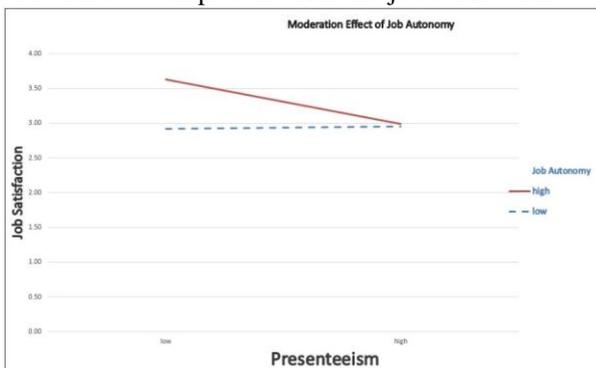
Variables	Dependent: Job Satisfaction <sup>1)</sup>											
	Step 1			Step 2			Step 3			Step 4		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
	3.15***	.03		3.15***	.03		3.15***	.03		3.12***	.03	
Age	.01	.01	.10	0.01	.01	.08	.00	.01	.04	.00	.01	.05
Gender <sup>2)</sup>	-.13	.07	-.10	-.08	.07	-.06	-.11	.06	-.08	-.11	.06	-.08
Tenure	-.02	.04	-.03	-.04	.04	-.07	-.04	.04	-.07	-.04	.04	-.08
Att. Mgt.	-.07*	.03	-.10*	-.06	.03	-.08	-.05	.03	-.07	-.06	.03	-.08
Presenteeism				-.44***	.06	-.33***	-.31***	.06	-.23***	-.29***	.06	-.22***
Job Autonomy							.24***	.04	.27***	.23***	.04	.27***
PRT*JobAuto										-.15**	.06	-.11**
R <sup>2</sup>	.030			.132			.194			.207		



$\Delta R^2$	.030*	.102***	.062***	.013**
F-value	3.38*	13.10***	17.20***	15.92***

1) \* p<.05, \*\* p<.01, \*\*\* p<.001, Unstandardized regression coefficients (B), standardized regression coefficients ( )  
2) female = 1, male = 0

In addition, to translate this moderation effect of job autonomy on presenteeism-job satisfaction, a graphical relationship with the generated coefficients was shown below. We plotted this graphical relationship at +/-1 SD (standard deviation) from the mean of job autonomy. As seen in Figure 2 below, the relationship was supported as predicted: presenteeism was negatively related to job satisfaction and this negative relationship was stronger when job autonomy was high, however not when it was low. Therefore, empirical test result shows that job autonomy plays a moderating role in the relation between presenteeism and job satisfaction.



**Fig 2. Presenteeism-Job Satisfaction Relationship when Job Autonomy was High and Low**

#### IV. CONCLUSION

The aim of the current study was to provide insight on the underlying effect of presenteeism on job satisfaction and to examine if job autonomy would play a moderating role as a mitigating mechanism in the negative presenteeism-job satisfaction relationship in Korean workplace context. As predicted, all the hypotheses were supported.

Based on the findings, the act of presenteeism by employees had significant and negative effects on the perceived job satisfaction of employees under the workplace climate in Korea. This result was equally consistent with many previous findings from various studies in Western countries. Therefore, the managements of organizations need to pay more attentions to this counterproductive behavior, presenteeism, prevailing in most of the companies to individual performance and productivity and to give more efforts finding practically acceptable policies or initiatives (e.g., individual health consultation program, sick leave policy, etc.) to upgrade employee health. This would lead to reduce presenteeism and in return to increase job satisfaction. Organizational level of physical and psychological wellness-related projects and policies to enhance individual employee health and performance and productivity, if practical, might have a leading prominent and positive effect on presenteeism. Thus the current study is worthwhile examining the effects of presenteeism on the perceived job satisfaction of organizational members within Korean context.

Secondly, job autonomy was positively related to job satisfaction. And the result found that job autonomy played a

moderating role in the negative presenteeism-job satisfaction relationship. This is, presenteeism gave a negative effect on job satisfaction and this negative relationship was stronger when job autonomy was high, yet not it was low. The higher job autonomy is given (or perceived to have) to employee and the lower presenteeism emerges in the workplace, the higher job satisfaction will be recognized.

Therefore, these findings from the current study were proven to be important because this was not only the first empirically attempted study under Korean context identifying the positive relationship between job autonomy and job satisfaction, but also provided an evidence which job autonomy would be one of the critical factors mitigating the adverse and counterproductive effects to the act of presenteeism in organization.

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#### REFERENCES

- Lewis, S., & Cooper, C. L. (1999). The work-family research agenda in changing contexts. *Journal of Occupational Health Psychology, 4*(4), 382.
- Aronsson, G., Gustafsson, K., & Dallner, M. (2000). Sick but yet at work. An empirical study of sickness presenteeism. *Journal of Epidemiol Community Health, 54*, 502-509.
- Hemp, P. (2004). Presenteeism: At Work-But Out of It. *Harvard Business Review, 82*(10), 49-58.
- Kivimaki, M., Head, J., Ferrie, J. F., Hemingway, H., Shipley, M. J., Vahtera, J., & Marmot, M. G. (2005). Working While Ill as a Risk Factor for Serious Coronary Events. *American Journal of Public Health, 95*(1), 98-102. doi: 10.2105/AJPH.2003.035873)
- Johns, G. (2010). Presenteeism in the workplace: A review and research agenda. *Journal of Organizational Behavior, 31*(4), 519-542. doi: 10.1002/job.630
- Grinyer, A., & Singleton, V. (2000). Sickness absence as risk-taking behaviour: a study of organisational and cultural factors in the public sector. *Health, Risk & Society, 2*(1), 7-21.
- Karanika-Murray, M., Pontes, H. M., Griffiths, M. D., & Biron, C. (2015). Sickness presenteeism determines job satisfaction via affective-motivational states. *Social Science & Medicine, 139*, 100-106. doi: 10.1016/j.socscimed.2015.06.035
- Miraglia, M., & Johns, G. (2016). Going to work ill: A meta-analysis of the correlates of presenteeism and a dual-path model. *Journal of Occupational Health Psychology, 21*(3), 261-283. doi: 10.1037/ocp0000015
- Hackman, J. (1987). The design of work teams. In J. Iorsch (Ed.), *the Handbook of organizational behavior* (pp. 315-342). Englewood Cliffs, NJ: Prentice Hall.
- Johansson, G., & Lundberg, G. (2004). Adjustment latitude and attendance requirements as determinants of sickness absence or attendance. Empirical tests of the illness flexibility model. *Social Science & Medicine, 58*(10), 1857-1868.
- Thompson, C. A., & Protas, D. J. (2006). Relationships among organizational family support, job autonomy, perceived control, and employee well-being. *Journal of Occupational Health Psychology, 11*(1), 100-118. doi: 10.1037/1076-8998.10.4.100



12. Turpin, R. S., Ozminkowski, R. J., Sharda, C. E., Collins, J. J., Berger, M. L., Billotti, G. M., . . . Nicholson, S. (2004). Reliability and Validity of the Stanford Presenteeism Scale. *Journal of Occupational and Environmental Medicine*, 46(11), 1123-1133. doi: 10.1097/01.jom.0000144999.35675.a0
13. Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35(5), 307.
14. Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91(6), 1321-1339. doi: 10.1037/0021-9010.91.6.1321
15. Johns, G. (2011). Attendance dynamics at work: the antecedents and correlates of presenteeism, absenteeism, and productivity loss. *Journal of Occupational Health Psychology*, 16(4), 483.
16. Aronsson, G., & Gustafsson, K. (2005). Sickness Presenteeism: Prevalence, Attendance-Pressure Factors, and an Outline of a Model for Research. *Journal of Occupational and Environmental Medicine*, 47(9), 958-966. doi: 10.1097/01.jom.0000177219.75677.17
17. Elstad, J. I., & Vabo, M. (2008). Job stress, sickness absence and sickness presenteeism in Nordic elderly care. *Scandinavian Journal of Public Health*, 36(5), 467-474. doi: 10.1177/1403494808089557
18. Iverson, R. D., & Deery, S. J. (2001). Understanding the "Personological" Basis of Employee Withdrawal: The Influence of Affective Disposition on Employee Tardiness, Early Departure, and Absenteeism. *Journal of Applied Psychology*, 86(5), 856-866.
19. Deery, S., Walsh, J., & Zatzick, C. D. (2014). A moderated mediation analysis of job demands, presenteeism, and absenteeism. *Journal of Occupational and Organizational Psychology*, 87(2), 352-369. doi: 10.1111/joop.12051
20. Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Chicago: Scientific Software International, Inc.
21. Stevens, J. P. (2012). *Applied multivariate statistics for the social sciences* (5th ed.). New York, NY: Routledge.
22. Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
23. Mulaik, S. A., James, L. R., Alstine, J. V., Bennett, N., Lind, S., & Stilwell, C. D. (1989). Evaluation of Goodness-of-fit Indices for Structural Equation Modeling. *Psychological Bulletin*, 105(3), 430-445.
24. Byrne, B. M. (2013). *Structural equation modeling with LISREL, PRELIS, and SIMPLIS: Basic concepts, applications, and programming*. Mahwah, NJ: Psychology Press.
25. Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). New York: McGraw-Hill.
26. Caverley, N., Cunningham, J. B., & MacGregor, J. N. (2007). Sickness Presenteeism, Sick Absenteeism, and Health following restructuring in a public service organization. *The Journal of Management Studies*, 44(2), 304-319.