

The Effects of Presenteeism and Social Loafing on In-Role Behavior at the Workplace

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Abstract: *Background/Objectives: Working while sick, commonly called presenteeism is a prevailing organizational issue. Presenteeism takes place when employees show up at work, but their cognitive energy cannot concentrate on their work. This article contributes empirically by examining the relationships between presenteeism and two types of employee behaviors: social loafing and in-role behavior directed to individuals at the workplace. Methods/Statistical analysis: Using 435 samples of individual workers, this research article tested the role of presenteeism instigating in-role behavior and revealed the mediation effect of social loafing. Using LISREL 8.54 for CFA and model fit test and SPSS 23 for regression analysis and bootstrapping for mediation effect analysis, hypotheses were tested. Findings: Results from SPSS and structural equation modelling (SEM) using LISREL revealed that presenteeism was statistically significant and had a positive effect on social loafing and had a negative effect on in-role behavior. Social loafing also played a mediation role on the relation between presenteeism and in-role behavior. Improvements/Applications: Current study revealed that employees working while sick were more likely to be involved in social loafing behavior at group activities and employees paying less effort when working collectively were also more likely to associate with decreased in-role behavior. Therefore the current study sheds light on the presenteeism phenomenon and reminds management of an extra attention to be paid to mitigate this adverse impact on group and individual performance.*

Keywords: *work while sick, presenteeism, social loafing, in-role behavior, extra-role behavior.*

I. INTRODUCTION

The purpose of this research is to unravel the underlying effect of presenteeism on in-role behavior and to test if social loafing of employees in organizations plays a mediating role in the relation between presenteeism and in-role behavior.

Presenteeism refers to showing up at work despite ill, or in brief put, “unhealthy but present” [1]. Presenteeism takes place when employees show up at work, but their cognitive energy cannot commit to their work. In this regard, presenteeism has become a prevalent organizational issue. A number of employees physically appear at work on any given days, but they are not functioning effectively enough [2]. Therefore, presenteeism defines in such a status when employees are physically at work but, due to medical and psychological conditions such as disease, slight injury, which they are not performing at ultimate level. When presenteeism occurs, employees often manifest diminished performance and productivity. Such lower level of individual performance and productivity would give direct and adverse effects on

corporate level of performance and productivity. In addition, the findings of Kivimaki et al. caution that periodic presenteeism may prompt more significant medical problems at the end of day [3].

Social loafing is the propensity for individuals to pay less endeavor when working collectively than working individually. Social loafing contains less work behavior than what is formally required [4] and it also leads to a diminished performance of individuals in groups. The study regarding social loafing can be sought to Max Ringelmann (cited in Latane et al. [4]) who found that, in a group rope-pulling test, players made use of less individual effort than if they did by themselves. Thus, to characterize the consequence of reduction in individual effort on group outcomes, it was coined the term - social loafing. While social loafing explains the motivation of individual employees refraining effort in an organizational setting, Collective Effort Model (CEM) demonstrates that in a collective setting, individual motivation to work more or less effort is driven by the extent to which they anticipate their exertion to be influential in gaining appreciated consequences [5]. Therefore, any individual employees who physically appear at work but due to their physical or psychological reason they are not performing at ultimate level are most likely to perform social loafing.

Social psychologists believe that social behavior is determined by people’s positions in the social relationships. It is very much alike to the script that manages the actors’ behavior in the theater. Both social loafing and in-role behavior are work behaviors attributed to the individual. In-role behavior is spelled out as the acts that are appreciated by company’s official systems and are piece of the conditions as defined in job descriptions [6]. It can also be described as the required or the awaited behavior for the achievement of job duties, while the extra-role behavior deals with a serial accumulation of actions that are not exhibited in the job description or linked with the posts or jobs of employee in the organization, which was also explained as “core behavior” and “arbitrary behavior”, respectively [7]. Three kinds of basic behaviors were identified by Katz, which have bottom line significances in organizational effectiveness. That is, people must decide if joining in the organization and keeping up the identity in the organization; the member in the organization must meet the explicit provisions for the job in a shared way; the member in the organization will instinctively engender abundant acts other than the job demands [8]. As for the second kind,

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Katz called attention that those organizations where only rely on the behaviors demanded by the job descriptions were extraordinarily feeble social operation [9].

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. In that sense, presenteeism could also be considered more positively in such a behavior as extra-role behavior (organizational citizenship behavior) [10]. But presenteeism will sooner or later be adverse and dysfunctional as it will cause the depression of individual employees, which will leads to the acts of social loafing in collective interactions among members in organizations. Therefore, employees in organizations who decide to go to work while sick are more likely to perform social loafing in group setting and people who decide to come to work sick will be less devoted to the required or expected duties and responsibilities of the assigned role. In that sense, social loafing is anticipated to mediate the relation between presenteeism and in-role behavior. Therefore, hypotheses are developed as below.

Hypothesis 1. Presenteeism has a positive effect on social loafing.

Hypothesis 2. Presenteeism has a negative effect on in-role behavior.

Hypothesis 3. Social loafing will mediate the relation between presenteeism and in-role behavior.

II. MATERIALS AND METHODS

2.1. Research Sample

This study was individual-level research and a structured questionnaire was designed to respond by members of the organizations. This questionnaire survey was administered in Korean, and measures for assessing variables were administered in Korean versions, which had adapted from previous studies with satisfactory reliability and validity. Prior-test was performed by visiting various local companies in G city from August through September 2017 and collected 92 samples. As per the consequences of the prior-test, questionnaires were revised accordingly and then the regular survey was administered throughout the nation. Full-time workers from several different organizations in diverse industries across Korea were asked to rate the survey items. After eliminating missing and/or unreliable responses, 435 sets of survey data with 5 Likert Scale and self-reported type were utilized to examine the study. This study sample was composed with 52.4% of female, an average age of 37.3 (SD = 9.2) years, an average of 15.4 (SD = 1.5) years of education, and an average of 9.3 (SD = 5.8) years tenure. These were included as control variables.

2.2. Measures

The measures for assessing the variables including control variables were adapted from previous works with satisfactory validity and reliability. These cross-sectional data was used empirically to test the current hypotheses. With the exception of some demographic survey items, all the items were to rate on a 5 point Likert scale ranging from 1 to 5 (“strongly disagree” to “strongly agree”) unless otherwise designated.

2.2.1. Presenteeism

To measure the act of presenteeism, SPS (Stanford Presenteeism Scale), which had designed and developed by Turpin et al. [11], was employed for the questionnaire survey. It consists of 10 questionnaire items and survey respondents were instructed to rate each marker of presenteeism on such instructions as “Did you feel energetic enough to complete your work?”, “Did you find your attention wandering?” One survey item was excluded for the analysis as the factor loading value was less than the acceptable criteria after CFA was conducted.

2.2.2. Social Loafing

Social loafing was assessed with a ten-item measuring the extent to which an employee tended to put forth less effort on the job when working in groups rather than working individually. The questionnaire was designed by adapting from the previous work including George JM (1992) [12]. “I put forth less effort on the job when others are around to do the work.” and “I defer responsibilities I should assume to other colleagues” were two examples in the questionnaires.

2.2.3. In-Role Behavior

In-role behavior is the acts that are related to the official roles assigned to the individual in the organization and to increase the performance as defined in the job description. In this study, seven questionnaires were used to measure the behavior within a role, which had developed by William & Anderson [6]. Those questionnaires are such instructions as “I adequately completes assigned duties” and “I fulfills responsibilities specified in job description.”

2.2.4. Control Variables

Age, gender, educational level of survey participants, and their tenure were included and intended those as control variables. Gender was coded as male = 0 and female = 1. Level of education was coded as high school or less = 12, 2-year college graduate = 14, 4-year university graduate = 16, and over graduate school = 18.

2.3. Data Analysis

To assess the hypotheses, statistical software packages (SPSS 23 and LISREL 8.54) were used for the analysis and for entire survey items Confirmatory Factor Analysis (CFA) was administered to ensure the discriminant validity. The CFA test was followed with the procedures suggested by Jöreskog & Sörbom [13]. As per the CFA results, all the survey items except one item in presenteeism were exceeded .4 in factor loading value, which results in satisfying the criteria of Stevens [14] that the factor loading value should be more than .4 to ensure the validities of measurement tool. Thus one item in presenteeism was deleted as the factor loading value was smaller than .4. So 9 items in presenteeism were used for further analysis.

To test the model fit, χ^2 (chi-square) statistic as well as NFI, CFI, IFI, SRMR, and RMSEA was utilized to ensure the potential bias issue of common method variance (CMV). A three-factor model (presenteeism, social loafing, and in-role behavior) was compared with a one-factor model (no dimension of variables). The higher NFI, CFI, and IFI are and the lower SRMR and RMSEA are,



the better model fits. Both associated fit indices and χ^2 (chi-square) statistic demonstrated a considerable progress in the three-factor model. Therefore, three-factor model showed the better fit to the data than the one-factor model where all

items were loaded on a single construct. So that made us to believe there was no significant potential bias issue of CMV. An adequate fit to the data is shown in Table 1 as below.

Table 1. Summary of Measurement Models Comparison

Models	χ^2	df	NFI	CFI	IFI	SRMR	RMSEA
Three-factor model	1079.43	296	.91	.93	.93	.075	.081
One-factor model	2875.53	299	.75	.77	.77	.14	.19

For the internal-consistency reliability, most measures was found to be stable. The Cronbach's α for presenteeism was .78, .89 for social loafing, and .90 for in-role behavior. And before the hypothesis testing, means, standard deviations (SD), and Pearson correlations (γ) for all the variables are demonstrated in the below Table 2. As expected, the presenteeism of individual employees was significantly

related to social loafing, in-role behavior, age, gender, and tenure ($p < .001$). And social loafing was shown strong correlation with in-role behavior ($p < .001$) and tenure ($p < .01$) along with the results that in-role behavior also was strongly correlated with age ($p < .01$), education and tenure ($p < .001$).

Table 2. Means, Standard Deviations, and Correlations (N = 435)

	Mean	S.D.	Correlations ¹⁾							
			1	2	3	4	5	6	7	
1. Presenteeism	2.86	0.51	1							
2. Social Loafing	2.69	0.66	.385***	1						
3. In-role Behavior	3.74	0.63	-.222***	-.312***	1					
4. Age	37.29	9.22	-.176***	-.089	.132**	1				
5. Gender ²⁾	0.52	0.50	.170***	.005	-.068	-.351***	1			
6. Education ³⁾	15.39	1.47	-.003	.010	.173***	.114*	-.095*	1		
7. Tenure	9.27	5.81	-.182***	-.127**	.167***	.761***	-.286***	.139**	1	

1) * $p < .05$, ** $p < .01$, *** $p < .001$

2) female = 1, male = 0

3) Transformed the educational level to 12 = high school graduate or less, 14 = college graduate, 16 = university graduate, and 18 = over graduate school

III. RESULTS AND DISCUSSION

For the Hypothesis 1 testing, regression analysis was conducted. For the regression model, Durbin-Watson 1.865 is believed to have no correlations among residuals as it is very close to the reference value of 2 and not close to 0 or 4. Therefore, a regression model can be interpreted as appropriate. The test results for the hypothesis 1 are shown in Table 3 below, showing that presenteeism are significantly and positively related to social loafing ($\gamma = .385$, $p < .001$). This supported Hypothesis 1 as the presenteeism behavior of workers has a positive effect on the high tendency to perform social loafing in group task. Prior to the analysis, multi-collinearity of the variables used in the model was also checked by examining the VIF (Variance Inflation Factors). Because the VIF values of all variables included in the regression analysis were shown less than 2.493 and not beyond the threshold of 10, it was concluded that no multi-collinearity issues exist.

Table 3. Relationship between Presenteeism and Social Loafing

Variables	Dependent: Social Loafing ¹⁾			
	Step 1		Step 2	
	B	β	B	β
(constant)	2.656***		1.252**	
Age	.001	.009	.002	.029
Gender ²⁾	-.040	-.031	-.101	-.077
Year of Education ³⁾	.012	.027	.007	.015

Tenure	-.016*	-.145*	-.011	-.102
Presenteeism			.494***	.385***
R ²	.018		.159	
ΔR^2	.018		.141***	
F-value	1.923		16.138***	

Unstandardized regression coefficients (B), standardized regression coefficients (β)

1) * $p < .05$, ** $p < .01$, *** $p < .001$

2) Female = 1, male = 0

3) Transformed 12 = high school graduate or less, 14 = college graduate, 16 = university graduate, and 18 = over graduate school

For testing the Hypothesis 2 & 3, a hierarchical regression analysis was performed and the test results were as below Table 4. As shown in the Table 4, presenteeism was significantly and negatively related to in-role behavior ($\gamma = -.203$, $p < .001$) after controlling the control variables (age, gender, education, and tenure). Therefore, Hypothesis 2 was supported. And the VIFs of all variables included in the hierarchical regression analysis were analyzed and they all represented less than 2.494, so there has no multi-collinearity issue among variables included.

To test the Hypothesis 3, the mediation analysis suggested by Baron & Kenny [15] was employed. According to them, mediation is supported when four fundamental requirements are met:



(Phase 1) the direction from the independent variable, i.e. presenteeism to the dependent variable, i.e. in-role behavior should be statistically significant; (Phase 2) the direction from the independent variable, i.e. presenteeism to mediating variable, i.e. social loafing should be statistically significant; and (Phase 3) the direction from the mediating variable to the dependent variable should be statistically significant while controlling the independent variable. (Phase 4) When and if all the requirements are met, a mediation effect is proven to be existed. In Phase 3 it is argued that there is a partial mediation effect when the effect of the independent variable shows any statistically significant on the dependent variable or that there is a full mediating effect when there exist no statistically significant effect of the independent variable on the dependent variable. And there should be shown statistically significant differences between effects from the

independent to the dependent variable. Such differences are the same as mediation effect and it can be verifiable through Sobel test [16].

Based on these requirements, as expected, presenteeism was statistically significant but negatively related to in-role behavior ($\beta = -.203, p < .001$), which satisfied the first requirement and presenteeism was statistically significant and positively related to social loafing ($\beta = .385, p < .001$), which fulfilled the second requirement from the previous test result in hypothesis 1 (Table 3). And social loafing was statistically significant and negatively related to in-role behavior while controlling presenteeism. Thus all the results verified that social loafing provides mediation effect on the relation between presenteeism and in-role behavior. The test results for hypothesis 2 & 3 are shown as below Table 4.

Table 4. Hierarchical Regression Analysis Predicting In-Role Behavior¹⁾

Variables	Dependent: In-Role Behavior ¹⁾								
	Step 1			Step 2			Step 3		
	B	S.E.	β	B	S.E.	β	B	S.E.	β
(constant)	2.591***	.347		3.301***	.378		3.617**	.371	
Age	.000	.005	.007	.000	.005	-.004	.000	.005	.004
Gender ²⁾	-.012	.063	-.010	.019	.062	.015	-.007	.061	-.005
Year of Education ³⁾	.065**	.020	.152**	.068**	.020	.158**	.069***	.019	.162***
Tenure	.015	.008	.139	.013	.008	.116	.010	.008	.090
Presenteeism				-.250***	.058	-.203***	-.125*	.061	-.102*
Social Loafing							-.252***	.047	-.264***
R ²	.051***			.091***			.149***		
ΔR^2	.051***			.039***			.058***		
F-value	5.793***			8.525***			12.461***		

1) * $p < .05$, ** $p < .01$, *** $p < .001$, Unstandardized regression coefficients (B), standardized regression coefficients (β)

2) female = 1, male = 0

3) Transformed the level of education to 12 = high school graduate or less, 14 = college graduate, 16 = university graduate, and 18 = over graduate school

As per the above results of mediation effect for Hypothesis 3, social loafing played a mediating role in the relation between presenteeism and in-role behavior. Therefore, based on Baron & Kenny’s mediation analysis method, it is argued that social loafing partially mediated the relation between presenteeism and in-role behavior.

To further assure the mediation effect of social loafing, the macro program ‘Process’ developed by Preach & Hayes for SPSS 23 was used and bootstrapping was also conducted along with the method directed [17]. The Sobel test result reported that the mediation impact of social loafing in the relation between presenteeism and in-role behavior was negatively related with 99% of confidence level ($-1.259, Z\text{-value} = -4.5685, p = .0000$). Therefore, social loafing played a mediating role between presenteeism and in-role behavior. Hypothesis 3 was also supported. In addition, with the aforementioned results of mediation analyses, it is argued that social loafing partially mediated the relationship between these two variables as the condition in Phase 4 from Baron & Kenny was met and bootstrapping result also showed the indirect effect of presenteeism on the in-role behavior, given

that within the BC (Bootstrapping Confidence Interval) which did not overlap with zero (LLCI: $-.1928$, ULCI: $-.0729$) and thus the total indirect effect was significant.

IV. CONCLUSION

To better understand the results of this study, graphical presentation is given as below Figure 1.

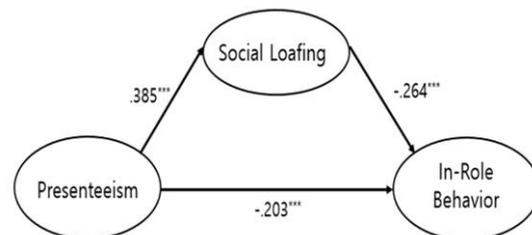


Figure 1. Final Empirical Results of the Study

The purpose of the current study was to examine the relation between presenteeism and the two employee behaviors:



in-role behavior and social loafing and to reveal insight of the presenteeism phenomenon for HR managers and top management in organization.

The findings from the current study were that employees who show up at work despite unhealthy in present organizations were more likely to show the propensity for individual to lead to consume less exertion when working collectively than individually ($\beta = .385, p < .001$) and they were decreasing the required behavior for the performance of individual job duties which in return lead a poor individual performance ($\beta = -.203, p < .001$). Considering the facts that in the current diverse and rapidly changing organizational environment most of employees are required to work more and more collectively with others in group settings and the cumulative individual performances lead directly to overall organizational performance, it become inevitable that management of the organization recognizes the importance of individual employees' (physical and psychological) health to minimize the presenteeism behavior. Therefore, given the evidence that presenteeism had a positive and negative effects on social loafing and in-role behavior, respectively, management of the organizations should pay further attention to this overall adverse effects caused by the act of presenteeism of individual employees.

The other findings were that social loafing played an important role in the relationship between presenteeism and in-role behavior. Firstly social loafing had a negative effect on in-role behavior ($\beta = -.264, p < .001$). Secondly, social loafing partially mediated the relationship between presenteeism and in-role behavior. These are, as aforementioned, the increased prevalence of presenteeism demonstrates the lower level of individual required performance in the organization. And employees who show up at work ill have propensity to pay less effort when working in group than working alone and those employees also showed less committed to the required duties which will lead to lower individual performance.

To ameliorate this negative impact from social loafing on the in-role behavior, in this regard, some insight could be borrowed from Karau & Williams' CEM. Among the eight suggestions to reduce social loafing, they suggested that social loafing could be reduced when: the group size is small, the group has built up a principle to evaluate accordingly each employee's performance, and the work tasks are either inherently entertaining, worthwhile to the individual. Therefore, such managerial and HR support in practical and working level as smaller group as possible at work group setting, clear job evaluation standard, and more interesting and meaningful tasks need to be taken as critical aspects in many organizations.

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