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Short Communication

Psychological Job Characteristics and Alexithymic Traits in Korean White-Collar Workers

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Alexithymia is a deficit in the ability to identify and describe emotions and a preoccupation with externally oriented thinking[1)]. Individuals with a high degree of alexithymia can exhibit a limited ability to reflect on and regulate their emotions and to verbally communicate emotional distress to other people[2)].

Kojima *et al*. reported a positive relationship between alexithymia and reduced social support among Japanese workers. They suggested that alexithymic workers might be unable to benefit from social support because of their cognitive deficits of emotion[3)]. However, few studies have investigated the relationship between psychological job characteristics and alexithymia. The present study aimed to explore the relationship between psychological job characteristics and alexithymic traits in a group of Korean white-collar workers.

Subjects and Methods

The subjects consisted of 291 Korean white-collar workers who visited a university hospital for health check-ups. None had a medical history of psychological disease. They were composed of 174 clerks (138 men and 36 women), 75 professionals (64 men and 11 women), 39 service workers (all males), and three sales workers (all males).

Psychological job characteristics were evaluated using the Korean version of the Karasek's Job Content Questionnaire (JCQ), which is a self-administered questionnaire for measuring psychosocial aspects of a working environment. We adopted four scales from the recent version of the JCQ in this study: (a) decision latitude (9 items), (b) psychological job demands (5 items), (c) job insecurity (3 items), and (d) job dissatisfaction (5 items). The validity and reliability of all these scales were confirmed previously by Eum *et al*.[4)] From their study, Cronbach's alpha values for the scales of decision latitude, psychological job demands, job insecurity, and job dissatisfaction were 0.74, 0.63, 0.53, and 0.81, respectively. Social support is one of the key factors in the JCQ. The social support scale in the JCQ requests that respondents assess the support from their coworkers and supervisors. From the pilot study in the application of the JCQ, some administrative executives disagreed with the inclusion of this scale, especially the inclusion of items to assess the support from supervisors. Therefore, we did not include this scale in the present study.

Alexithymia was assessed using the Korean version of the 20-item Toronto Alexithymia Scale (TAS-20K). The validity and reliability of the TAS-20K has been confirmed among Korean populations (Cronbach's alpha, 0.76)[5)]. The previously established cut-off scores on the TAS-20 to assign subjects to an alexithymia group were as follows[6)]: non-alexithymic, ≤51; intermediate, 52 to 60; and alexithymic, ≥61. However, because the number of subjects (n=5) whose TAS scores were 61 or higher was small, we assigned both intermediate (52≤ TAS score ≤60) and alexithymic (TAS score, ≥61) subjects into the alexithymic traits group and compared them with non-alexithymic subjects (TAS score, ≤51) for our analysis.

Data on age, gender, occupation, marital status, education, smoking, and alcohol consumption of the subjects were also collected through a self-administered questionnaire. Usual alcohol consumption was defined as drinking alcohol at least once per week, and education was dichotomized into the presence or absence of a college education. All subjects provided their informed consent.

Statistical analysis

The chi-square test was applied for non-parametric comparison of the characteristics of individuals with and without alexithymic traits. The JCQ scales showed skewed distributions; therefore, we dichotomized individual scales according to median scores, instead of dichotomizing the scales according to mean scores or treating them as continuous variables. The crude and adjusted odds ratios (ORs) for alexithymic traits according to individual dichotomized JCQ scales were calculated. Multiple logistic regression analyses were performed to examine the associations between individual JCQ scales and alexithymic traits after adjusting for the following covariates: age, gender (male/female), occupation (office worker/professional/other), marital status (married/unmarried or other), education (college graduation/other), smoking (non-smoker/ex-smoker/current smoker), and usual alcohol consumption (yes/no).

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Table 1. Characteristics of subjects with alexithymic traits† and non-alexithymics‡ in this study (numbers in parentheses are percentages)

	Alexithymic traits (n=29)	Non-alexithymics (n=262)	*p*
Age (yr)			<0.001
20–29	6 (20.7)	30 (11.5)	
30–39	13 (44.8)	44 (16.8)	
40–49	7 (24.1)	139 (53.1)	
50–59	3 (10.3)	49 (18.7)	
Gender			0.716
Male	25 (86.2)	219 (83.6)	
Female	4 (13.8)	43 (16.4)	
Occupation			0.038
Clerk	14 (48.3)	160 (61.1)	
Professional	13 (44.8)	62 (23.7)	
Other	2 (6.9)	40 (15.3)	
Marital status			0.009
Married	17 (58.6)	209 (79.8)	
Unmarried/other	12 (41.4)	53 (20.2)	
College graduation			0.016
Yes	23 (79.3)	147 (56.1)	
No	6 (20.7)	115 (43.9)	
Smoking			0.662
Non-smoker	12 (41.4)	100 (38.2)	
Ex-smoker	5 (17.2)	65 (24.8)	
Current smoker	12 (41.4)	97 (37.0)	
Usual alcohol consumption*			0.072
Yes	8 (27.6)	118 (45.0)	
No	21 (72.4)	144 (55.0)	

†Alexithymic traits: Toronto Alexithymia Scale (TAS) score ≥52.

‡Non-alexithymics: TAS score <52.

*Usual alcohol consumption was defined as drinking alcohol at least once per week.

Results

Compared with the non-alexithymic subjects (total TAS score <52, n=262), those with alexithymic traits (total TAS score ≥52, n=29) were more likely to be in their 20s and 30s (χ^2=17.65, p<0.01); have a professional occupation (χ^2=6.52, p<0.05); have a college education (χ^2=5.79, p<0.05); and be unmarried (χ^2=6.73, p<0.01) (Table 1).

The crude ORs revealed that high job insecurity (OR, 2.35; 95% CI, 1.08–5.10) and high job dissatisfaction (3.93; 1.68–9.19) were significantly associated with alexithymic traits. After adjusting for covariates, low decision latitude (2.97; 1.14–7.70), high job insecurity (3.44; 1.41–8.37), and high job dissatisfaction (7.37; 2.74–19.87) were significantly associated with alexithymic traits. The Hosmer and Lemeshow goodness-of-fit test revealed that our statistical models fitted the multiple logistic regression analyses well: χ^2=9.44, df=8, and p=0.31 for decision latitude; χ^2=3.59, df=8, and p=0.89 for psychological job demands; χ^2=4.97, df=8, and p=0.76 for job insecurity; and χ^2=3.59, df=8, and p=0.89 for job dissatisfaction (Table 2).

Discussion

The results of this study indicate that individuals with alexithymic traits may have lower decision latitude and higher job insecurity and job dissatisfaction than non-alexithymic individuals. Owing to their difficulty in identifying and describing feelings, workers with alexithymic traits may have problems coping with the stress of their work, resulting in insecure feelings and dissatisfaction in their job. Consequently, they may be unable to adjust appropriately to their work environment because of their inability to recognize and regulate their emotions.

Several limitations of this study should be considered when interpreting the results. First, a causal relationship

Table 2. Frequencies and odds ratios of individual dichotomized Job Content Questionnaire (JCQ) scales for alexithymic traits

JCQ scale	Frequency		Odds ratio	
	Alexithymic traits (n=29)	Non-alexithymics (n=262)	Crude (95% CI)	Adjusted for covariates† (95% CI)
Decision latitude				
>60	13 (44.8)	131 (50.0)	1.00	1.00
≤60	16 (55.2)	131 (50.0)	1.23 (0.57–2.66)	2.97 (1.14–7.70)
Psychological job demands				
≤30	12 (41.4)	144 (55.0)	1.00	1.00
>30	17 (58.6)	118 (45.0)	1.73 (0.79–3.76)	0.81 (0.31–2.13)
Job insecurity				
<5	14 (48.3)	180 (68.7)	1.00	1.00
>5	15 (51.7)	82 (31.3)	2.35 (1.08–5.10)	3.44 (1.41–8.37)
Job dissatisfaction				
≤0.42	8 (27.6)	157 (59.9)	1.00	1.00
>0.42	21 (72.4)	105 (40.1)	3.93 (1.68–9.19)	7.37(2.74–19.87)

†Covariates comprised age, gender (male/female), occupation (office worker/professional/other), marital status (married/unmarried or other), education (college graduation/other), smoking (non-smoker/ex-smoker/current smoker), and usual alcohol consumption (yes/no).

between psychological job characteristics and alexithymia could not be accurately identified because the design of our study was cross-sectional. Second, an operational criterion of alexithymia—a total TAS score of 51 or higher—was applied in this study because few of the subjects were compatible with the screening scores of the original alexithymia scale. This procedure may have lead to some measurement error. Third, in our study, workers with alexithymic traits were more likely to be 20s and 30s in their ages, in professional occupations, college graduates, unmarried and have lower decision latitude and higher job insecurity and job dissatisfaction. It can be assumed that these people are easily preoccupied with the performance of their work. Therefore, their hard situation at work may contribute to high scores of TAS, which suggests secondary alexithymia. From the study on the association between alexithymia and work-related stress disorders, de Vante et al. found elevated TAS scores among patients with occupational stress, compared to healthy controls. They concluded that alexithymia is associated with occupational stress and highly state dependent, which indicates the presence of secondary alexithymia[7]. Finally, our subjects were a small number of workers who visited a university hospital for health check-ups, and they had various occupations. Therefore, our results cannot be generalized as general tendency of Korean white-collar workers. Further investigations using diverse large-scale samples are necessary to confirm our results and formulate generalizations.

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