Relationships among Self-Management Skills, Communication with Superiors, and Mental Health of Employees in a Japanese Worksite

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Abstract: The present study investigated relationships among self-management skills, communication with superiors, and the mental health of employees in a Japanese worksite. The subjects were manufacturing workers in a medium-sized company in Kyushu. In 1999, we mailed a self-administrated questionnaire which included questions on age, gender, job rank, communication with superiors, a General Self-Efficacy Scale, a Self-Management Skill Scale, and the Japanese version of the 12-item General Health Questionnaire (GHQ-12). Eighty percent of the subjects returned the questionnaire. Excluding senior managers and insufficient answers, the final response rate was fifty-five percent. The multiple regression analysis showed that job rank contributed significantly and positively and that age, communication with superiors, and self-management skills contributed significantly and negatively to the GHQ-12. Our results implied that self-management skills might have the potential of affecting the mental health of Japanese employees.

Key words: Mental health, Communication, Social skills, Worksite, Multiple regression analysis

Recently there has been an increasing focus on the mental health of the Japanese worker because of a growing number of suicides among middle-aged and older workers¹⁾. Mental health promotion of the Japanese workers is an important issue in the field of occupational health.

Lewinsohn *et al.*^{2,3)} indicated that the process from stressors to illness was interfered with by personal social skills and that social skills were important for mental health. In Japan, Takahashi^{4,5)} suggested that social skills were important to perform actual health behaviors.

Bandura^{6,7)} suggested that self-efficacy was an individual's perception of his/her ability to perform specific health behaviors and to influence his/her health status.

We hypothesized that the mental health status of employees was influenced by self-efficacy, self-management skills, and communication with superiors. We investigated the relationship among self-efficacy, self-management skills, communication with superiors, and mental health to certify our hypothesis and to improve workers' mental health.

The subjects were manufacturing workers in a medium-sized company in the Kyushu area. The manufacturing company had about four hundred employees in 1999.

In August 1999, we mailed a self-administrated questionnaire which included age, gender (male (0) or female (1)), job rank (non-manager (0) or manager (1)), communication with superiors, a General Self-Efficacy Scale (GSES), a Self-Management Skill Scale (SMS), and the Japanese version of the 12-item General Health Questionnaire

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(GHQ-12).

Eighty percent of the subjects returned the questionnaire by October 1999. Excluding senior managers, 234 respondents returned sufficient answers for analysis and the final response rate was fifty-five percent.

The GSES is a 16-item questionnaire measuring the self-efficacy of Japanese people⁸⁾. The higher scores denote higher self-efficacy.

The scale of communication with superiors (SCS) was developed on reference of the previous reports⁹⁾ and after conducting interviews to several workers. We made a 4-item questionnaire. Sample question was "Can you confer with your superiors even over minor matters?" The higher scores denote better communication with superiors.

The SMS is a 10-item questionnaire and includes self-management skills. The higher scores denote greater self-management skills.

In the GHQ-12, each answer was calculated using a likert score from zero to three. The higher sum of the 12 items denotes poorer mental health¹⁰⁾.

Multiple regression analysis (not stepwise method) was performed to estimate the factors contributing to the mental health of the employees among age, gender, job rank, SCS, GSES, and GHQ-12 in order to certify our hypothesis. The calculations were performed with SPSS 10.0 J.

Seventy-six point one percent of the respondents were male and twenty-three point one percent were managers. The mean age (SD) of all the respondents was 44.9 (10.7) years old, with the mean age for males and females being 44.1 (10.8) and 46.6 (7.9), respectively.

Table 1 shows the results of multiple regression analysis (df=6, F=12.47, p<.001). Job rank contributed significantly to GHQ-12 positively, however, age, SCS, and SMS contributed significantly to the GHQ-12 inversely.

Our study found that age contributed significantly to the GHQ-12 inversely. This finding corresponded with the Sakurada's study¹¹⁾, which showed that age contributed negatively to depressive mood in male employees in Japanese companies.

We found that job rank also contributed positively to the GHQ-12. Most of the managers in our results were middle-level managers. This result was compatible with the Takeda's study¹²⁾, in which managers tended to have more symptoms of general fatigue than non-managers in Japanese worksites.

In Our results, the communication with superiors significantly affected the GHQ-12 negatively. This finding was compatible with the previous study¹³⁾, in which poor relationships with superiors, which were induced by poor communication with superiors, were significantly related

Table 1. Multiple regression analysis of independent variables against GHQ-12

Independent variables	B	T-value	P-value
Age	-0.273	-4.376	0.000
Gender	-0.035	-0.557	0.578
Job rank	0.186	2.897	0.004
SCS	-0.264	-4.509	0.000
GSES	0.078	1.322	0.187
SMS	-0.209	-3.486	0.001

B: Standardized partial regression coefficient, SCS: Scale of communication with superiors, GSES: General self-efficacy scale, SMS: Self-management skill scale, GHQ-12: the Japanese version of the 12-item General Health Questionnaire.

to the mental health of Japanese employees.

We found that self-management skills, a kind of social skill, had a significant and negative effect on the GHQ-12. Self-management skills are considered the base of coping strategies because they include collecting information needed to carry out tasks, identifying core problems, and feasible pace and planning of such task⁴⁾. Irie *et al.*¹⁴⁾ indicated that difficulty in dealing with stress and negative and malfunctional coping strategies were relative to the negative mental health of Japanese workers. The previous studies suggested that when social skill training was introduced to those with mental disturbance and the training skills maintained, this had a favorable effect on the relapse rate or symptoms of mental diseases¹⁵⁻²¹⁾.

The present study had a cross-sectional design. We estimated weak causal relationships among age, job rank, communication with superiors, self-management skills, and mental health status in Japanese employees.

We had two further limitations. The first was the validity of the questions regarding communication with superiors. The second was that we did not measure the employees' stressors which were major factors contributing to their mental health.

In conclusion, our results showed that psychological well-being of employees would be contributed to negatively by job rank and positively by age, communication with superiors and self-management skills in a Japanese medium-sized company. Our results implied that self-management skills might have the possibility to affect the mental health status of Japanese workers.

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