

# Effects of an Occupational Mental Health Program on Sick Leave Duration, Restoration and Contract Termination Rates

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## Abstract

We investigated the effects of an occupational mental health program, which was introduced into Company A since April 2002, on the following: 1) sick leave duration, 2) restoration and 3) contract retirement rates. This occupational mental health program included primary prevention by mental health seminars, early detection of mental health problem by an occupational counselor, referral to mental health facilities, and a reinstatement support program recommended by the Ministry of Health, Labor and Welfare. This new program is called Program A. And sick leave duration, restoration and contract retirement rates were compared between before and after the Program A was introduced. As a result, the sick leave duration according to mental health problems for each person was  $519.2 \pm 267.8$  days before, and  $307.6 \pm 249.8$  days after the introduction of Program A, which produced a significant difference ( $p < 0.01$ , paired t-test). There was also increase in restoration rates from 34% (before Program A) to 38% (after Program A). Furthermore, there was decrease in contract retirement rate from 41% to 28% (after Program A).

Key words: depression, sick leave, restoration, economy, mental health

## ❖ Introduction

After the end of bubble economy in early 90s, there has been a huge change of working condition in Japan. Many companies have abolished lifetime employment and seniority wage systems which were characteristics of the former Japanese style of work system. Alternatively, the Japanese companies adopted the result oriented principle and the management by objectives which had been unfamiliar in Japan, followed frequently by Merger and Acquisition.

According to the White Paper on Workers' Mental Health by the Japan Productivity Center for Socio-Economic Development (JPC-SED), approximately

60% of companies replied that instances of "emotional disorders" in their companies are showing an "increasing trend" in the past three years, and there were workers who took more than a months' leave of absence from work due to the "emotional disorders" in 66.8% of all companies<sup>1)</sup>. This figure was more important among major companies with over 3000 employees: 95.9%<sup>1)</sup>. Also, Shima et al. revealed that the restoration rates were still low due to absence of improvement in working circumstances<sup>2)</sup>.

In these contexts, an occupational mental health program was introduced into one company (Company A) since April 2002. In this study, authors investigated its effects of on sick leave duration, restoration and contract retirement rates.

## ❖ Studied Population and Methods

The Company A, which had 2,400 full-time employees, has introduced an occupational mental

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health program in April 2002. This occupational mental health program included primary prevention by mental health seminars, early detection of mental health problem by an occupational counselor, referral to mental health facilities, and a reinstatement support program recommended by the Ministry of Health, Labor and Welfare<sup>3</sup>). Before that, the Company A had no specific program of mental health and has dealt with the sick leave case with mental health problems as same as case with other reasons. Table 1 demonstrates how mental problems are dealt with for Pre-Program three years and Post-Program three years.

In order to investigate the effectiveness of this program, we compared sick leave duration, restoration and contract retirement rates between Pre-Program three years and Post-Program three years. The employees who had developed mental problems prior to the Pre-Program three years were excluded from this analysis.

## ❖ Results

Figure 1 shows the numbers of employees who have newly developed mental problems in each year. The numbers of mentally ill employees have been increasing after 2000, when the result oriented principle and the management by objectives were introduced into the Company A. The abrupt increase of sick leave employees by mental problems was recog-

nized. Considering this situation, Company A started the Program A including primary prevention by mental health seminars, early detection of mental health problem by an occupational counselor, referral to mental health facilities, and a reinstatement support program.

Table 2 demonstrates the demographic data of mentally ill employees during the periods of Pre- and Post-Program. Thirty-seven males and 9 females developed mental problems during the Pre-Program period, while 124 males and 70 females in Post-Program period. Between two periods, male cases increased 3.5 times and females cases increased 7.8 times. In terms of the age, there are much more young employees who had mental problems in the Post-Program period. More cases were recognized among the employees with shorter duration of employment (0–4 years). According to the DSM-IV, the most important disease was affective disorders, followed by somatoform disorders and anxiety disorder.

Table 3 shows a comparison of sick leave duration, restoration and contract termination rates. The average days of sick leave in each person, 786 days before the Program-A, was considerably reduced to 39%, that is 308 days, after the Program-A was introduced. There was no significant change in restoration rate for longer sick leavers. On the contrary, there was a significant increase of shorter sick leaver (less than 5 days) ( $p < 0.01$ ), and a significant decrease in contract termina-

Table 1. Before and After Program A

	Pre-Program A	Post-Program A
Three years	April 1999 - March 2002	April 2002 - March 2005
Primary prevention program	none	Seminars for managers and administrative staff
Secondary prevention program (early detection & treatment)	Guidance by an occupational nurse distribution of a pamphlet	Administration of mental health check sheet through intranet counselling by an occupational counsellor
Tertiary prevention program (diagnosis & treatment)	Referral by an occupational nurse or non-psychiatric company doctor to medical facilities	Referral to a part-time company psychiatrist
Rehabilitation	Restoration only through doctor-in-charge outside company	Collaboration among doctor-in-charge, part-time company psychiatrist and non-psychiatric full-time company doctor A reinstatement support program participated by an employee, a company doctor, a human resource staff, and a manager

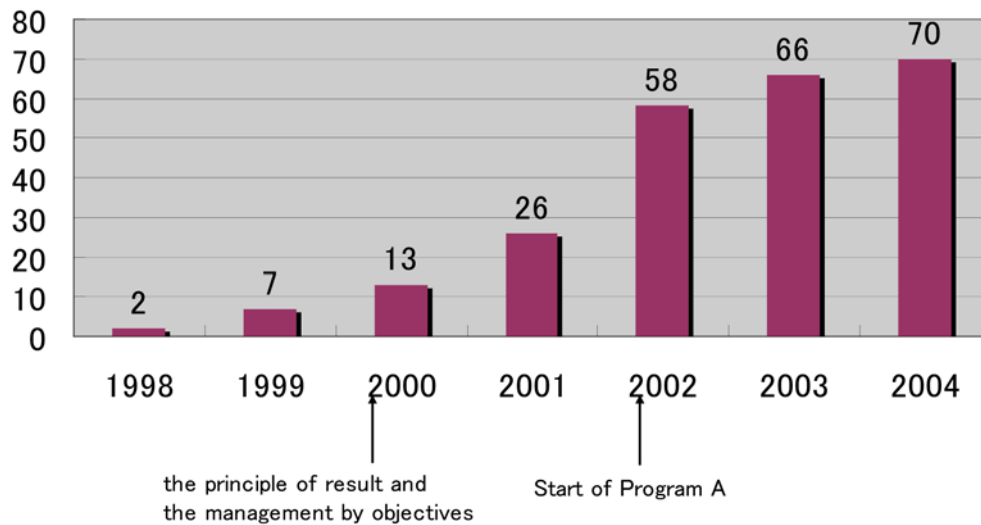


Figure 1. Newly detected case suspended due to mental disorders

Table 2. Background of mentally ill employees

		Pre-	Post-Program	Total
Sex	male	37	124	161
	female	9	70	79
Age	20-24	1	28	29
	25-29	13	64	77
	30-34	17	44	61
	35-39	8	36	44
	40-44	6	15	21
	45-49	0	7	7
	50<	1	0	1
Years of employment	0-4	16	109	125
	5-9	15	27	42
	10-14	9	36	45
	15-19	4	17	21
	20-24	1	4	5
	25-29	1	1	2
Marital state	single	30	127	157
	married	14	66	80
	divorced	2	1	3
Mental disorders according to DSM-IV	Mental disorders according to physical conditions	0	4	4
	Substance-related disorders	0	1	1
	Schizophrenia	0	1	1
	Affective disorders	27	119	146
	Anxiety disorders	5	19	24
	Somatoform disorders	11	28	39
	Sleep disorders	2	5	7
	Adjustment disorders	0	2	2
	Personality disorders	1	5	6
	Others	0	10	10

Table 3. Sick leave duration, restoration and contract termination rates

	Pre-	Post-Program	
Number of new sick leave	46	194	
Total days of sick leave	32,220	40,616	
Cases of sick leave longer 5 days	41	132	
Average days of sick leave	519	308	p<0.01
Cases of restoration	14	51	
Restoration rate for longer sick leavers	34%	38%	n.s.
Cases of sick leave shorter than 5 days	10	80	
Rate of shorter sick leavers	22%	41%	p<0.01
Contract termination	19	54	
Rate of contract termination	41%	28%	p<0.01

tion rate after the introduction of Program A (p<0.01).

## Discussion

According to the results of this study, we would like to discuss the following four issues.

First, there has been so few studies in Japan on ADSL. According to the study of Shima S et al., the ADSL was  $4.8 \pm 5.4$  months (1–29 months) or  $144 \pm 162$  days<sup>2)</sup>. Nordqvist et al. reported that the ADSL was 79 days, and that it was one month among 25% of suspended employees of the companies in their study<sup>4)</sup>. Moreover, 52% of suspended workers returned to their jobs, while 8.5% of them have been still suspended in 12 months. This study demonstrated that introduction of a new program (Program A) reduced the average days of sick leave (ADSL) from 786 to 308, which means 39% reduction. However, it is still longer than the ADSL in the above mentioned studies. As most depressed workers could return to their jobs in 3 months in Japan, the ADSL in our study is still longer. This results might indicate that Program A is to be modified. Of course, it might be too early to evaluate the effectiveness of Program A on ADSL. We should observe it for a longer period, because the effects began to appear in two years as indicated in Figure 1.

Second, there is also few studies investigating the restoration rate in Japan. According to Shima<sup>2)</sup>, two thirds of restored employees adapted for more than 6 months, while one third failed to adapt in 6 months for 10 companies during 3 years. Kawakami indicated that 50% of 60 restored employees could adapt for 8

years as well as healthy workers<sup>5)</sup>. Program A in our study improved the restoration rate from 34 to 38%, but it is still low comparing to Kawakami's study (50%) or Shima's study (66%). One of the possible reasons why the restoration rate is still low in our study is that the ADSL among most of our suspended workers is too long. This characteristic might indicate that our suspended employees had been severely and chronically depressed. As indicated by Shima, the companies are likely to make such employees return to their jobs by the easier condition without any clearly effective restoration program<sup>2)</sup>. Also, the evaluation criteria for restoration are different according to the medical facilities outside the companies. Therefore, it is necessary to develop a standard evaluation criteria for restoration.

As Nordqvist indicated, the success of restoration depends upon regular contact with suspended workers by human resource staff and upon establishment of a clearly defined restoration program<sup>4)</sup>. In these contexts, it would be more effective for restoration that occupational counselors talk with suspended employees on a regular-basis under the collaboration with their doctors-in-charge, and with their boss/senior and human resource staff. This kind of program will be effective in order to remove stigma to mental illness and to make more practical and effective restoration program.

Third, Program A in this study increased the cases and the rate of sick leave shorter than 5 days as shown in Table 3. This result suggests that Program A was effective for detecting employees suffered from early stage of mental disorders. They did not need longer

sick leave. They had to see their psychiatrist in every two weeks by using one-day sick leave. Or they might stay at home because of being convalescent. Generally, employees who just returned to job could not fully work for some duration. This fact should be kept in mind for every staff in workplace.

Fourth, contract termination rate in this study was 28%, which was similar to 21% in Shima's study<sup>2)</sup> and 26% in Nakagawa's study<sup>6)</sup>. In Program A, occupational/carrier counselor would deal with the mentally ill employees considering options to change their jobs if necessary. For that purpose, the counselor analyzes the competencies of suspended workers from various perspectives.

According to the survey by the Japan Productivity Center for Socio-Economic Development (JPC-SED), the rate of the companies adopting a special program for mental health was 46.3%, however, 61.9% answered that they discussed about the mental health programs at least once in a previous year. Also, 42.2% of them answered that they had not started discussing these issues because they had no information how to set about<sup>7)</sup>. As another reason, we think that the companies had not taken mental health issues seriously because there was no information about the economical loss produced by mental health problems. Therefore, economical study concerning mental

health problems should be more investigated in order to facilitate occupational mental health program in Japan.

## ❖ References

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