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Special Edition
On Mental Health Disorders in the Workplace

Articles

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Workaholism and Mental and Physical Health
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Article Based on Research Report

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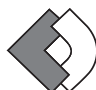
JILPT Research Activities



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Introduction

On Mental Health Disorders in the Workplace

In the last decade or so, Japan has suffered from a high level of suicides in excess of 30,000 per year. In fact, Japan's suicide mortality rate per 100,000 population is markedly higher than in western industrialized nations. According to a survey by the Ministry of Health, Labour and Welfare, patients suffering from mood disorders (including depression) have more than doubled from 433,000 fifteen years ago to 958,000 in recent years. In view of this, the Ministry has drawn up a policy on measures to prevent suicide, including the establishment of a "Project Team against Suicide and Depression." One point emphasized within this process is "to elevate mental health countermeasures in the workplace." The reasons for this are that a high proportion of all suicides (around 27%) are committed by persons in employment, and that suicides are often caused by work-related problems, including fatigue due to long working hours or overwork, human relations in the workplace, and other factors.

The Ministry's "Guidelines for Maintaining and Improving Workers' Mental Health" set out basic rules on methods of implementing mental health care, as the future direction for effective practice aimed at maintaining and promoting workers' mental health in places of business. Specifically, it highlights the importance of preventive action plans aimed at maintaining mental health, training and provision of information on promoting mental health care, the response to persons with mental health disorders, and ways of supporting their smooth return to work.

Although public concern for the maintenance of workers' mental health has recently been raised in this way, a number of measures will be essential to prevent an increase in workers with mental health disorders as a problem in reality. One of these will be to clarify the causes behind mental health disorders, such as workplace environments and working conditions. Another will be to study preventive measures designed to stop mental health disorders from occurring in the first place, as well as appropriate response measures once a disorder has taken hold. In this Special Edition, therefore, the focus will be on the maintenance of workers' mental health in the workplace, and to this end, papers written from the perspectives of organizing the present situation of workers' mental health disorders, their causes, response and countermeasures will be introduced.

The first of these perspectives is that of organizing the present situation of mental health. Two papers will be introduced in this regard. In "Mental Disorders among Today's Labor Force and Preventive Measures," Yujiro Hara notes that mental health disorders in the workplace have become a major problem in recent years. In this respect, the author points out that the approach of preventive medicine to mental health disorders has undergone a change. That is, in the past, concern was focussed on efforts aimed at early discovery and response, treatment, workplace reinstatement and preventing recurrence in individuals.

In recent years, however, there have been growing expectations of measures designed to prevent mental disorders from developing not just in individuals but in workplace environments and whole organizations as well. Along with this shift in mental health countermeasures from an "individual-oriented type" to an "organization-oriented type," Hara asserts the importance of employers proactively tackling mental health care. This can take forms such as providing training on mental health for employees and supervisors, improving workplace environments, and enhancing support by specialist staff in industrial health.

With companies now being urged to take positive action on mental health, what efforts have actually been made in recent years? In "What Types of Companies Take a Proactive Approach to Mental Health?," Kazuya Ogura analyzes factors influencing whether an employer makes efforts toward mental health in the workplace, the adequacy of those efforts, variation in numbers of workers suffering from disorders, levels of concern, etc. This analysis is based on individual data from the "Research on Mental Health Management in the Workplace" conducted by the Japan Institute for Labour Policy and Training in 2010. Ogura also studies the correlation between efforts for mental health and two types of variable: (i) those connected with corporate attributes such as sector and scale, and (ii) variables such as changes in numbers of regular employees, the clarity of procedures and rules on the treatment of employees taking leave, and so on.

The second perspective concerns the causes of mental health disorders among workers. In "Workaholism and Mental and Physical Health," Takashi Fujimoto studies the mechanisms and causes behind mental health conditions based on the current status quo. The author focuses on the correlation between the characteristics and awareness of individual workers toward their work (as illustrated by the word "workaholic") and their mental health. While "workaholic" is generally assumed to have negative connotations such as being "addicted to work," it is also a fact that some workers have a high level of involvement in their work and actually enjoy working long hours. Based on a study of the various elements that characterize a "workaholic", Fujimoto studies the correlation between "workaholism" and issues such as working hours and health, including positive aspects of the ways in which individuals involve themselves in their work.

Workers suffering from mental illness are very likely to take leave or be absent from work. The employer's response to workers in such cases can be said to have a big impact on the issues of continued employment and treatment for mental illnesses. Thus, as the third perspective, two papers are introduced. The first presents views from a legal standpoint on ways of handling dismissal and other matters arising in connection with mental health problems, while the second deals with companies' response and specific measures for workers with mental health disorders.

In "Employers' Response to Workers Appearing to Suffer from Mental Illness—A Recent Supreme Court Judgment, the Law and the Administration", Fumiko Obata examines the issue of validity in connection with dismissal and other disciplinary action by companies against workers suffering from mental illness. As a specific court precedent, the au-

thor introduces the Supreme Court judgment on the Hewlett-Packard Japan case, in which a worker who had been continuously absent due to a mental disorder was compelled to retire on grounds of unauthorized absence. Among other issues, Obata also mentions the draft amendments to the Industrial Safety and Health Act and the Act on Employment Promotion, etc. of Persons with Disabilities (the latter in connection with the mandatory employment of persons with mental illness). Obata suggests that these will have a positive impact on the problems of employing workers suffering from mental health disorders and the mentally ill in future.

In "Return to work following mental health-related absences: Effective evidence-based reinstatement support," Yoko Sugimoto introduces survey data, case studies and others gathered in connection with the activities of the Reinstatement Support Panel, which is administered by the Health Care Center of the Panasonic Health Insurance Organization. The Panel's mission is to facilitate the reinstatement of employees who have been absent due to mental health issues. Specifically, it makes medical judgments on whether an employee who has taken leave in connection with a mental health disorder is ready to go back to work, based on a certificate of diagnosis from the employee's attending physician. This paper describes the life attitude of workers with mental health disorders and specific support until their return to work, based on survey results and case studies of reinstatement eligibility diagnosis for employees who have taken leave in connection with mental health disorders.

As stated at the outset, this Special Edition introduces five papers compiled from the various perspectives of organizing the present situation of workers' mental health disorders, their causes, response and countermeasures. Although each paper raises different points in connection with mental health disorders, an assertion they seem to have in common is that, in recent years, there has been a change of awareness in this regard. Namely, mental health disorders have come to be perceived as a problem to be tackled by workplaces, organizations or society as a whole, rather than being limited to problems of individual workers. As well as self-management by individual workers, the necessity and importance of efforts toward mental health disorders by workplaces and society as a whole is being asserted, and there is more interest in this issue. In that case, finding specific ways of materializing and enhancing efforts on mental health disorders and mental health maintenance could be seen as an important task that should be tackled continuously in future.

Harumi Muroyama
The Japan Institute for Labour Policy and Training

Mental Disorders among Today's Labor Force and Preventive Measures

Yujiro Hara
Ds's Mental Health Labo Inc.

In recent years, mental disorders among Japan's labor force have emerged as a major issue, with statistics showing that nearly 60% of workers experience stress on the job, and approximately one million have developed mood disorders as a result. Dealing with workers suffering from mental disorders has become a demanding task for employers, and preventive measures are being sought. The Guidelines for Maintaining and Improving Workers' Mental Health released by the Ministry of Health, Labour and Welfare (MHLW) in 2006 calls for four types of mental health care (self-care, care by management and supervisors, care by industrial health staff, etc. placed at offices, and care by external resources), and as primary preventive measures, self-care, care by management and supervisors, and improvement of work environments are being examined. Meanwhile, in providing employees with support for reinstatement after mental health-related absences, pre-reinstatement rehabilitation programs (known in Japan as "rework programs") are drawing much attention as a means of bridging gaps in perception between mental health care professionals and employers. Moving forward, to implement more effective preventive measures, industrial health specialists, human resources divisions and management must share a common vision for mental disorder countermeasures incorporating the concept of "work engagement," and supplement and cooperate with one another's efforts to develop these countermeasures.

I. Introduction: Background to the Emergence of Workplace Mental Health as a Key Issue in Japan

Currently, mental disorders are a major workplace issue in Japan. A 2010 survey of businesses' mental health-related policies by the Institute of Labour Administration indicates that 63.5% of businesses have had employees who were absent for one month or more for mental health reasons, and the figure grows to 97.5% for companies with 1,000 or more employees. These numbers have risen since the previous survey in 2008. In terms of trends over the past three years, 44.4% of companies marked an increase in the number of mental disorder sufferers during this period, and while this represents a drop from the previous (2008) survey's figure of 55.2%, it is still the most common response for this survey item. With regard to civil servants, 2001 and 2006 results of the Survey on Long-Term Leaves of Absence due to Illness among National Public Employees conducted every five years by the National Personnel Authority showed that the most common cause of long-term (one month or longer) absences due to illness was "mental or behavioral disorders," accounting for 63.0% of long-term absences due to illness. The percentage of civil servants taking long-term absence due to illness in the later survey was 1.28%, roughly triple the figure of

Table 1. Sources of Significant Anxiety, Worry and Stress Felt at Work or in Professional Life

(Unit: %)

Item	All respondents	Male	Female
Work content	34.8	36.3	32.5
Workload	30.6	30.3	31.1
Aptitude for duties	22.5	21.2	24.5
Interpersonal relations	38.4	30.4	50.5
Promotion and salary increases	21.2	24.9	15.6
Reassignment	8.1	8.7	7.1
Job security	12.8	12.2	13.7
Employer's future business outlook	22.7	29.1	12.9
Post-retirement employment and living conditions	21.2	24.1	16.7
Other	9.3	9.4	9.3

Source: MHLW, *Survey on State of Employees' Health (2007)*.
Note: Multiple responses (up to 3) possible.

0.46% in 2001.

According to the Survey on State of Employees' Health performed by the MHLW every five years since 1982, the percentage of workers experiencing stress in their professional lives is constantly rising, with 58% reporting some kind of stress in latest survey (2006). The breakdown of sources of stress (see Table 1) indicates that the top three factors for both men and women are "interpersonal relations in the workplace," "labor conditions" and "workload." Other increasingly common sources of stress are "employer's future business outlook," "job security," "promotions and salary increases," and "anxiety about post-retirement living conditions." Structural changes in society are thought to lie behind these trends. In the past, seniority-based promotion was taken for granted in Japanese companies, and most workers once hired could count on their employers to look after them as they gradually climbed the corporate ladder until retirement. Also, the 2007 White Paper on the National Lifestyle describes weaker ties with colleagues among younger workers in particular, increased workplace automation causing an increase in solitary work, changes in the ways employees relate to the workplace, and regular employees in their prime working years working disproportionately long hours, all of which seem likely to contribute to stress. In addition, Japan's unemployment rate has remained at a high level (4.2% in a January 2013 survey by the Ministry of Internal Affairs and Communications) since the global financial crisis of 2008. Businesses have come to prioritize performance and business results above all, and declining profits have led to layoffs euphemistically known as "restructuring." Workers can no longer count on lifetime employment at a single company, and in this new era must assume sole responsibility for keeping themselves employed.

Another factor is the stunning speed of progress in information technology, such as smartphones that allow employees to check e-mail or documents even when out of the of-

fice, and give them the same access to information they would have in Japan even when overseas. While this is certainly convenient, it means that even on days off people are often exposed to work-related information, and the boundary between work and leisure time has become blurred. Also, a 2008 MHLW white paper describes an ongoing rise in the number of households where both husband and wife work. In 1980, there were fewer than six such households for every ten households with a working husband and unemployed wife, but the number of households where both work surpassed the number of households with a stay-at-home spouse in 1997 and has continued to rise. In the past, more traditional gender roles meant that men and women to some extent took responsibility solely for either earning income or for housework and child care, but more and more people today are taking responsibility for both. In other words, it is no longer sufficient for workers to simply complete the tasks they are assigned—they must also balance work and other aspects of life on their own initiative. All of these changes in Japanese society are placing an increasing burden on workers and appear to be acting as sources of stress.

In many cases stress results in health problems, notably mental disorders. This includes a clear rise in the number of people suffering from mood disorders, which according to an MHLW Patient Survey conducted every three years came to approximately one million in 2008. Also, a World Mental Health Japan Survey of people aged 20 and older, performed in 11 regions, found that over the preceding 12 months 8.8% of regional residents had experienced some form of mood, anxiety or substance abuse disorder (with depression alone afflicting 2.9%) (Kawakami et al. 2005). The same survey also found that of those who experienced depression in the previous 12 months, 14% had consulted a psychiatrist, 14% had visited a psychologist, and 9% had seen a general practitioner, but over 70% had not sought any medical treatment (Naganuma et al. 2006). This data suggests that not only have a large number of workers been forced to take leaves of absence for mental health reasons, there are also a great many experiencing latent stress, many of whom suffer from some form of mental disorder without seeking diagnosis and treatment. The number of work injury claims and settlements stemming from mental disorders is growing, with the 1,272 claims filed in 2011 topping the prior annual record for the third consecutive year. The 325 claims resulting in monetary compensation also represented a new record (MHLW, 2011 Survey on Status of Workers' Compensation regarding Brain and Heart Disorders and Mental Disorders). Furthermore, the National Police Agency reports that the suicide rate in Japan is second only to Russia among developed nations. The number of suicides skyrocketed from 24,391 in 1997 to 32,863 in 1998, and since then the annual number of suicides has largely stayed above 30,000. It fell to 27,766 in 2012, but the reasons for this are not clear. In fiscal 2011 approximately 30% of people who committed suicide were employed, and approximately 2,500 are thought to have killed themselves for work-related reasons. In some cases excessively long work hours appeared to have driven people to suicide (a phenomenon known as *karo jisatsu* or suicide due to overwork). The MHLW estimates Japan's annual economic losses due to suicide and depression at approximately ¥2.7 trillion.

Meanwhile, according to the World Health Organization (WHO), unipolar depression ranked third in the 2004 Global Burden of Disease (GBD) Study of mortality and disability from major diseases, and is expected to rank first by 2030. All of these findings and perspectives indicate that reducing the suicide rate and preventing mental disorders such as depression is not merely a concern for individual employers, but a pressing issue of national and international dimensions. This is reflected by various measures taken in Japan, such as enactment of the Basic Act on Suicide Prevention in 2006, and recognition of mental disorders as the fifth "disease requiring widespread and ongoing provision of medical treatment" in Japan's fiscal 2013 Health Care Plan, added to the existing four (cancer, strokes, heart attacks and diabetes).

II. The Four Types of Mental Health Care and Preventive Measures

Japanese society and the business community have been taking a wide range of preventive medical measures in response to the above-described situation, and there are calls for much more to be done. In Japan preventive mental health care became possible in the 1950s due to the emergence of psychotropic drugs, the recognition of mental disorders as treatable conditions, and the accompanying clarification of the mechanisms of mental illness. However, at this stage the focus was primarily on how to treat mental disorders, and such preventive medicine as existed could be classified as tertiary prevention (reducing negative impact of existing disease by restoring function and reducing complications). From there the field progressed to secondary prevention (diagnosing and treating existing disease in early stages before it progresses significantly), and today there is a growing focus on primary prevention (preventing occurrence of disease before it emerges.)

When taking preventive measures, businesses are directed to follow the Guidelines for Maintaining and Improving Workers' Mental Health (MHLW, 2006, hereinafter referred to as the "Guidelines.") In practical terms, the Guidelines recommend four types of mental health care. Businesses adopting preventive measures are likely to refer to the Guidelines, and they are clearly organized so as to provide a framework for businesses to formulate measures. For this reason I will summarize the specifics of the Guidelines and outline the primary, secondary and tertiary preventive measures being taken based on them. The four types of mental health care are self-care, care by management and supervisors, care by industrial health staff, etc. placed at offices, and care by external resources (see Figure 1). The following is a brief overview of the types of care.

• Self-Care

According to the Guidelines, self-care is the foundation for maintenance of mental health. To promote self-care, employers should provide workers with training or information to enable them to understand mental health and reactions to stressors in general as well as correctly assess their own stress level and mental state. The goal is for employees to

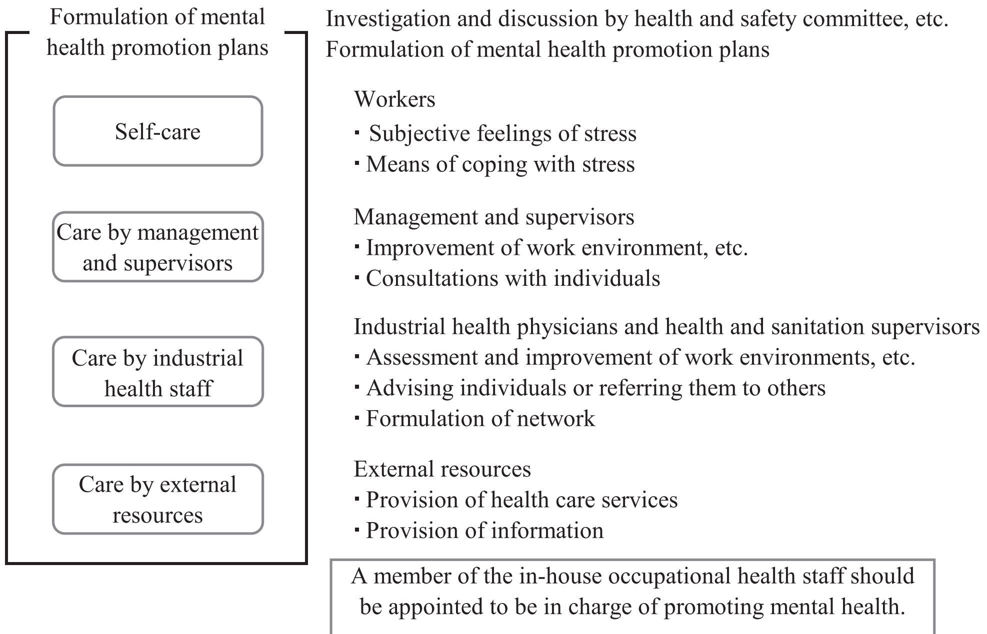


Figure 1. The Four Types of Mental Health Care

recognize their own stress levels, acquire knowledge and techniques for dealing with it, and put them into practice. Naturally, these measures are targeted not only at rank-and-file employees but also at supervisors and management. If workers are able to notice when stress is mounting, and take steps to alleviate it, they will be able to prevent mental disorders before they occur, making this an example of primary prevention. In some cases symptoms may already have appeared, but self-care can make sufferers notice and address them, which would qualify as secondary or tertiary prevention.

• Care by Management and Supervisors

Supervisors and managers are in a position to monitor subordinates on a day-to-day basis. They also play an important role in that they are aware of specific factors causing stress in the workplace, and are capable of advising workers on various issues. Supervisors and management have an obligation to monitor the work environment, make necessary improvements, and take initial countermeasures if approached by a subordinate. To enable them to fulfill this obligation, businesses should provide adequate training and information on mental health care.

• Care by Industrial Health Staff, etc. Placed at Offices

The category of industrial health staff, etc. placed at offices includes various types of health care professionals such as industrial health physicians, health and sanitation supervisors, public health nurses, personnel and labor administrators, and psychiatrists. As mental health care specialists, the in-house industrial health staff plays a central role in workplace mental health care, advising both workers and management, formulating and implementing mental health care plans, and building and facilitating networks with external resources. For self-care and care by management and supervisors to be effective, there must be a system in place in which workers and management can easily consult someone when they notice problems affecting themselves or subordinates. Businesses should appoint a member of the in-house industrial health staff to be in charge of promoting mental health, and these staff members should employ the insights and suggestions of experts to implement measures effectively.

• Care by External Resources

Support from various external resources possessing specialized expertise, such as medical institutions and corporations that provide mental health care services, is effective for promotion of mental health in the workplace. As a basic rule the in-house industrial health staff is to act as a liaison and establish relationships with medical institutions, etc. so as to build up a reliable network of external resources that can be consulted as needed.

As the above illustrates, the guidelines for the four types of mental health care call on businesses to play a central role in mental health care, with particular importance assigned to self-care and care by management and supervisors. In-house industrial health staff are to take charge of formulating and implementing preventive measures, with supplementary assistance provided by external institutions and resources. The following is an outline of how the four types of mental health care should be applied from a preventive medicine standpoint.

1. Self-Care as Primary Prevention

Businesses should promote self-care in the workplace, as a primary preventive measure, by offering training programs for workers. What kind of training should be provided, based on which specific principles? Here I will relate several valuable insights gleaned from randomized and non-randomized controlled trials conducted by Shimazu (2009) both in Japan and overseas.

- In terms of training content, meta-analysis by Van der Klink et al. (2001) and Richardson and Rothstein (2008) showed that methods based on a cognitive-behavioral approach or incorporating relaxation techniques had a greater intervention effect than other methods. A meta-analysis of the latter in particular found that programs employing the cognitive-behavioral approach used alone had the greatest effect. Meanwhile, many other programs adopted a cogni-

tive-behavioral therapy approach or cognitive-behavioral approach combined with relaxation techniques. The goal of many programs employing a cognitive-behavioral approach was to impart basic information about stress management and various techniques to cope with stress. These include problem solving, cognitive restructuring, and assertion, but no studies have directly compared the intervention effects of these techniques. The relaxation techniques many programs sought to explain and teach to trainees included muscle relaxation, autogenic training, and breathing techniques, but again there have been no studies directly comparing the relative effectiveness of the techniques. There has also been little research directly comparing the effects of a cognitive-behavioral approach and a relaxation approach, and these effects vary widely in any case, meaning it is not possible at this stage to say which approach is more effective.

- With regard to the structuring of training programs, for the most part the persons providing training were clinical psychologists or stress management specialists, with no evident discrepancy in effectiveness depending on whether clinical psychologists were in-house or external. There was great variation in the number of sessions conducted. For programs with multiple sessions, a study has been done comparing the effectiveness of programs with booster sessions and those without (Rowe 1999). It found that for the group receiving booster sessions five, eleven and seventeen months after the program ended, the training's effects lasted two years, whereas they only lasted six months for those not receiving booster sessions. A large number of programs entailing two or more sessions achieved the primary objective of alleviating psychological stress reactions. Among the 40 studies in which this objective was achieved, the average length of time per session was approximately 100 minutes.

Integrating these insights, we arrive at the conclusion that training programs ought to offer basic information on stress management, and ought to incorporate a cognitive-behavioral approach and relaxation techniques. Programs entailing multiple sessions over multiple days, in which each session lasts less than two hours, have a longer-lasting effect.

Either in-house or external specialists may lead the training, to comparable effect, but having in-house industrial health staff in charge offers advantages in that employees will be able to consult these same personnel afterward on a day-to-day basis. This makes it easy for trainees to envision, in concrete terms, seeking assistance and advice, and can facilitate secondary and tertiary prevention later on. For this reason in-house industrial health staff are thought to be ideal. For reference, Figure 2 and Table 2 show the contents and guidelines of self-care training conducted by the author.

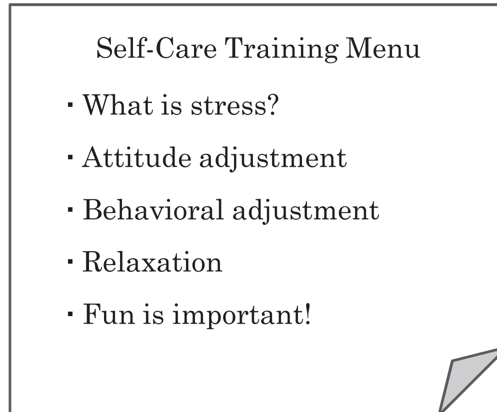


Figure 2. Example of Contents of Self-Care Training

Table 2. Contents of Self-Care as Stipulated by the Guidelines for Maintaining and Improving Workers' Mental Health

1. Businesses' in-house policies on mental health care
2. Basic facts about stress and mental health care
3. The importance of self-care and appropriate attitudes toward mental health issues
4. Recognizing stress
5. Stress prevention, alleviation and coping methods
6. Efficacy of voluntary consultations
7. Information on persons to consult within organization and about external resources

2. Care by Management and Supervisors as Primary Prevention

Specific measures relating to "care by management and supervisors" fall roughly into two categories. One is training for management and supervisors, and the other is improvement of the workplace environment. With regard to the former, according to reviews by Tsutsumi et al. (2009) and others, the outcomes of multiple controlled trials showed that in the short term at least, single-session group training for managers and supervisors had a positive effect on the mental health condition, insomnia symptoms, and performance of subordinates and other workers (Greenberg 2006; Kawashima et al. 1996; Kawakami et al. 1997; Kawakami et al. 2005, 2006; Takao et al. 2006; Theorell et al. 2001; Tsutsumi et al 2005). Positive impact on the mental health of subordinates and entire organizations was noted particularly when training for managers and supervisors covered the items (see Table 3) stipulated by the Guidelines (Kawashima et al. 1996; Kawakami et al. 1997; Kawakami et al. 2005, 2006; Takao et al. 2006; Tsutsumi et al. 2005). Boosting levels of knowledge and motivating positive behavioral shifts in supervisors and managers are thought to be

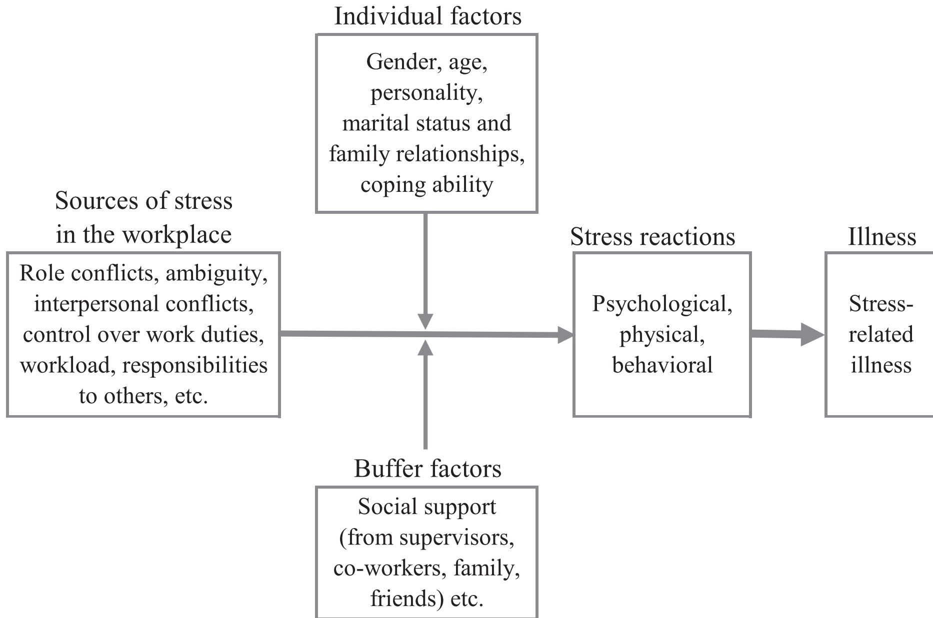
Table 3. Contents of Care by Management and Supervisors as Stipulated by the Guidelines for Maintaining and Improving Workers' Mental Health

1.	Businesses' in-house policies on mental health care
2.	The significance of mental health care in the workplace
3.	Basic facts about stress and mental health care
4.	The role of management and supervisors, and appropriate attitudes toward health issues
5.	Methods for assessment and improvement of work environments, etc.
6.	Responding to consultations from workers (how to listen, how to provide information and advice, etc.)
7.	Providing support for reinstatement of workers after leaves of absence for mental health reasons
8.	Coordinating directly with in-house industrial health staff and indirectly with external resources
9.	Self-care procedures
10.	Information on persons to consult within organization and about external resources
11.	Protection of workers' personal information including medical data

mechanisms producing positive effects in this training (Tsutsumi et al. 2005) In terms of the frequency and duration of training, findings show that the effects of training are no longer clearly evident after six months (Nishiuchi et al. 2007). In terms of content, training should promote understanding of occupational stress and stress models. This understanding is to be applied in day-to-day management of subordinates, and to ensure a firm grasp of key points when improving workplace environments (to be discussed in detail later). The following three stress models are widely recognized:

• NIOSH Occupational Stress Model

The US National Institute for Occupational Safety and Health (NIOSH) reviewed occupational stress research to prepare this model of occupational stress (Hurrell and McLaney 1988) (See Figure 3). In simple terms, the model hypothesizes that job-related stressors provoke acute stress reactions, and if stressors are maintained for long periods of time, they lead to mental disorders. However, it is clear that reactions to stress vary, as people experience stimuli in different ways and enjoy different levels of support from those around them. For this reason the model postulates moderating variables to explain people's differing reactions to stressors that are similar in type and degree. These moderating variables include factors related to individual character and private life, and buffer factors. The model provides a cross-section that is useful for understanding stressors and development of disorders. That is to say, it illustrates the fact that everyone has his or her own unique circumstances and does not necessarily come to suffer from a disorder simply due to the quantity or quality of work engaged in, while on the other hand, everyone may be susceptible to disorders under certain circumstances, regardless of his or her skills and abilities. In other words, the model clearly conveys the concept that managers should address each person as



Source: Adapted from the NIOSH Occupational Stress Model (Hurrell and McLaney 1988).

Figure 3. Occupational Stress Models

a whole, unique individual when dealing with subordinates. Also, the model shows that the support of supervisors and co-workers acts as a buffer factor to mitigate stress, and helps managerial personnel understand the role they play.

• Demand-Control Model of Job Stress

In this model postulated by Karasec (1979), psychological stressors in the workplace are functions of how demanding a person's job is and how much control they have over it. Job "demands" include amount of work, time constraints, degree of concentration required, and performance of work under pressure, while "control" includes latitude to make decisions, skill discretion (degree to which the job involves a range of abilities and tasks), and other factors. Crossing high or low demand with high or low control produces four groups: (i) High Strain (high levels of demand but little latitude for control), (ii) Active (highly demanding jobs with a high degree of control), (iii) Low Strain (low levels of demand with high levels of latitude), and (iv) Passive (low levels of both demand and control). The model hypothesizes that the High Strain group is most vulnerable to mental disorders.

Johnson and Hall (1988) added social support as a factor in their Job Demands-Control-Support model. In this model the group most susceptible to adverse stress reactions is the group with high levels of demand, low levels of control, and little social support from co-workers, etc. Regardless of which model is employed, it is evident that

supervisors must not only gauge their subordinates' job demands and prevent overly long work hours or excessive volume of work, but also allocate authority and latitude commensurate with each employee's level of demand (Kawakami 2002).

• Effort-Reward Imbalance Model

This model postulated by Siegrist (1996) synthesizes behavioral economics and stress theory. It hypothesizes that an imbalance between effort expended on the job and the resulting reward leads to high levels of tension in the sympathetic nervous system and provokes stress reactions (Tsutsumi 1999). Here "effort" includes levels of job demand and energy expended, and "reward" includes not only monetary compensation but also psychological rewards and career advancement. These are out of balance when, for example, people perform highly demanding jobs for low pay, or expend a great deal of energy without being properly appreciated nor praised. In addition to the perspectives of the demand-control model, management must keep the balance of effort and reward in mind when supervising personnel.

To summarize the above: while much remains unclear due to the small number of studies that have been performed, what can currently be said about training for supervisors and managers is that it should follow the MHLW Guidelines, that it should heighten trainees' levels of understanding (including of the contents of occupational stress models) and bring about positive changes in their behavior patterns as a result, and that it should be conducted at least twice a year or so.

The next topic is improvement of work environments. This is not necessarily the sole responsibility of managerial personnel, but as they are in a position to monitor the workplace day-to-day and make improvements as they see fit, it is certainly possible and advisable for them to do so as one element of "care by management and supervisors," taking the above-described occupational stress models into account. Details will be outlined in the next section.

3. Improvement of Work Environments: A Powerful Tool for Primary Prevention

The Guidelines place strong emphasis on improvement of work environments as a means of promoting mental health, stating that "improvement of work environments is an effective means of maintaining and improving workers' mental health, and encompasses improvement of the physical work environment, work procedures, equipment and facilities aimed at relieving workers' physical and mental fatigue, other equipment and facilities that are necessary in the workplace, working hours, quantity and quality of tasks, interpersonal relations in the workplace including sexual and other harassment, organizational, human resources and labor administration systems, corporate culture and climate, and other factors that impact the quality of the work experience. Improvements to workplace layout, procedures, communication and organizational structure are among the steps that can be taken. For this reason employers should take active steps to implement such improvements so as to

prevent mental disorders before they occur." The effectiveness of such improvements has been reported internationally, for instance in a report by the ILO (International Labor Organization) compiling successful case studies of workplace stress countermeasures from a total of 19 work sites in nine countries. The report notes that many countermeasures entailed improvement of work environments, and that while the outcomes of measures geared toward individuals were temporary and limited, improvement of work environments was noticeably more effective (Karasek 1992). Meanwhile, in a review of 18 studies by Egan et al. (2007), it was reported that 12 of these studies established a control group, and of these, eight studies found positive changes in health indicators correlated with work environment improvements.

In Japan, tools for work environment improvements including the Mental Health Action Checklist (MHACL) (Yoshikawa et al. 2007) have been developed and used for workplace intervention studies (Kobayashi et al. 2008; Tsutsumi et al. 2009). In an intervention study by Kobayashi et al. (2008), improvement of work environments carried out with worker participation produced positive results among white-collar women in terms of command of technology, support from supervisors and co-workers, physical complaints, and job satisfaction. These improvements were particularly dramatic in workplaces where 50% or more of employees participated in making changes to the workplace, and there appeared to be a direct correlation between degree of participation and effectiveness. Meanwhile, a randomized controlled trial by Tsutsumi et al. (2009) found that initiatives to improve work environments employing the MHACL resulted in an unchanged mental state for the intervention group, while the mental health of the control group (as measured by a General Health Questionnaire) declined (this is ascribed to changes in the content of work tasks). The intervention group reported a subjective improvement in performance as well.

As described above, efforts to improve work environments have been lauded as effective means of primary prevention both in Japan and overseas. The following points are key: "work contents and procedures," "workplace organization" and "physical and chemical environment of the workplace" (Kawakami 2002). The phrase "work environment" may sound like it merely refers to lighting, positioning of desks and so forth, but it is much broader and also includes interpersonal relations and organizational structure, as taken into account by the MHACL. The following is an outline of the specific steps taken when implementing work environment improvements using the MHACL adapted from Working Group on preparation of Hints for Improving Work Environments (Action Checklist) (2005). All steps are to be implemented using the PDCA (Plan, Do, Check, Act) cycle.

(1) Build Consensus on Measures

As a stress countermeasure, pursue improvement of work environments by informing managers and supervisors of stress survey results, internal and external guidelines, and innovative efforts by progressive companies and work sites. Training for management and supervisors engaged in providing mental health care should be emphasized, and prepara-

tions made and consensus built to boost the momentum of work environment improvements. Consensus on these improvements should be built as a stress countermeasure, by obtaining the understanding of all managers up to the top levels, and publicizing improvements as part of health and sanitation policies or in-house mental health care policies.

(2) Participation and Publicization

Gather workplace information and topics with the goal of effectively implementing improvements to work environments, and make preparations for implementation. First of all, make a list of case studies of workplace stress countermeasures, and obtain information from management, supervisors and employees on measures that are already being pursued. Even if they are not directly aimed at combating stress, it is important to note improvements that are already in place or can easily be implemented, such as prevention of second-hand smoke, elimination of excessive overtime, or changes to office layout. Also, gather information and opinions from management and supervisors and workers about stress factors in the workplace. Make preparations for discussions on improvement of work environment during work hours as a part of workplace duties, notify workers, and encourage participation.

(3) Discussions and Proposals regarding Improvements

Provide a forum for group discussions employing the MHACL (including management and supervisors, workers, labor and human resources administrators, industrial health staff, etc.) and for presentation of the results of these discussions. The discussions should cover case examples of measures and improvements that contribute to stress alleviation, making reference to survey results and positive case studies from the workplace itself. The outcomes of discussions should be recorded in documents and saved as references for countermeasure implementation plans or risk assessment results.

(4) Implement and Assess Measures

Management, supervisors and health and sanitation staff compile the results of discussions (ideas for workplace improvements) for each division, and decide on concrete plans for implementation. Formulate follow-up plans to be put into effect by all stakeholders together. Assess the status of improvement efforts at regular intervals, such as quarterly or yearly, and conduct further stress surveys, applying the results to the next year's action plans.

When putting these measures into effect, there are several points to keep in mind, such as: specifying a particular individual as the target of measures runs the risk of being tantamount to an attack on that individual, so instead gear ideas toward general solutions; do not attempt to make radical changes, instead accumulate a series of gradual changes; and to track progress, adopt short-term indicators such as participants' satisfaction levels and progress of specific improvement measures as well as long-term indicators such as health,

as it takes a long time to see tangible change in such indicators and it may appear the measures are having no effect. It goes without saying that if stress prevention measures themselves are causing stress, the entire exercise is self-defeating, so it is vital to build sufficient consensus, set productive goals, and set indicators that can help maintain motivation among participants.

A collection of hints for improving work environments and manual for using the MHACL are available for download (in Japanese), along with further detailed information: http://mental.m.u-tokyo.ac.jp/jstress/ACL/.

4. Tertiary Prevention and Care by External Resources

In-house industrial health staff members with specialized expertise play the roles of instructors and coordinators in the implementation of the various preventive measures discussed thus far. External resources supplement these efforts, but where external resources play a central role is in the field of tertiary prevention. This means not only treatment of disorders but also rehabilitation programs for employees returning to work after leaves of absence, which have gained increasing attention in recent years. Here, "rehabilitation programs" refers to programs for employees who become unable to work and take leaves of absence due to depression or other mood disorders (known in Japan as "rework programs"). These programs are defined as having three primary goals: (i) Recovery from illness and stabilization of condition, (ii) Assisting employees with preparation to return to work, and (iii) Improving self-care skills so as to prevent reoccurrence of symptoms (Arima 2010). To achieve these goals, rehabilitation programs should incorporate the following four elements: (i) A fixed location that participants can commute to as practice for commuting to work once they are reinstated, (ii) Schedules and frameworks that exert fairly strict control over participants spatially and temporally, and (iii) Work programs with some sort of quota imposed, and (iv) Psychosocial training programs that foster self-care aimed at preventing a reoccurrence of symptoms (Arima 2010). Currently rehabilitation programs are gaining prevalence in Japan, with both public and private institutions offering them and the Depression Rework Research Association established in 2008 to promote them.

Growing interest in these programs springs in part from discrepancies in perception between employers and health care professionals. Psychiatric care differs from other medical fields in that treatment is generally not performed on the basis of hard numerical data, and often the subjective complaints of the patient are the primary grounds for determining how care will proceed. Simply put, if the patient says he or she is "cured," then the patient is considered cured unless his or her behavior or the opinions of family members, etc. make a strong case to the contrary. For this reason many workers on leave of absence are diagnosed as being ready for reinstatement, but upon returning to work their disorders reemerge and they soon take another leave of absence. I myself have had many such experiences. According to a survey of 846 Japanese psychiatrists and psychologists (Kashiwagi et al. 2005), a major criterion for diagnosing a subject as ready for reinstatement is "the primary

physician's subjective judgment" (cited by 66.2% of respondents), and the primary physician's judgment in the majority of cases (85.8%) leans in favor of the patient. The same survey found that while the vast majority of primary physicians (96.2%) viewed "remission status" of a disorder as a prerequisite for reinstatement, most employers (74.3%) wanted disorders "fully cured" before employees return to work (Kashiwagi et al. 2005). Rehabilitation programs are seen as a support system for social reemergence, which helps bridge this gap in perceptions (Arima and Akiyama 2012). Oki and Igarashi (2012) have reported on the effectiveness of rehabilitation programs, and they are widely seen as an effective means of facilitating reinstatement when employed as an element of "mental health care by external resources" (tertiary prevention).

III. Current Status of Companies' In-House Measures

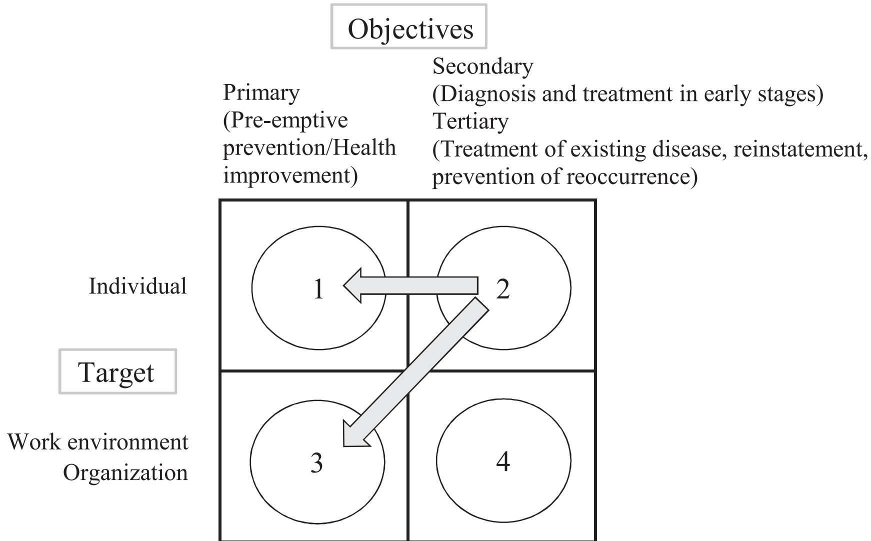
As we have seen, there has been a fair volume of research on the relative effectiveness of various mental disorder prevention measures, and the picture is becoming clearer. What kinds of measures, however, are Japanese companies actually implementing? The 2007 Survey on State of Employees' Health found that only 33.6% of businesses were taking some kind of measures to promote mental health, but the figure had risen to 50.4% in a 2010 survey of mental health measures in the workplace (Japan Institute for Labour Policy and Training 2011). In the specific areas outlined above (training for self-care, training for care by management and supervisors, and improvement of work environments), the percentage of businesses taking some measures went from 11%→21%, 17%→25%, and 7%→7% respectively over the 2007 to 2010 period. While this represents a rise in prevalence in most areas, levels remain low overall. Major reasons for not adopting measures in these areas were "lack of perceived necessity," "not knowing what sort of steps should be taken," and "lack of human resources specializing in these areas." On the other hand, over 70% of businesses surveyed perceive a need to increase emphasis on mental health care, with 55.2% responding that it is "more or less necessary to increase emphasis" and 15.0% that it is "absolutely necessary" (Japan Institute for Labour Policy and Training 2011).

These results indicate that while there is currently insufficient recognition among businesses of the importance and necessity of preventive measures, there is nonetheless a strong perception that such measures will become necessary in the future. Many employers appear to be struggling with the issue, hoping to implement measures soon or in the future, but lacking specialist staff or lacking the information necessary to know how to proceed. To look on the positive side, however, the findings suggest that with deployment of in-house staff well versed in occupational health, communication of the importance of prevention, and formulation and implementation of specific initiatives, preventive measures can be advanced effectively.

IV. Outlook for the Future

At the beginning of this paper it was noted that as psychiatric medicine progresses in Japan, the focus is shifting from tertiary to primary prevention. In terms of the objectives and targets of prevention, while secondary and tertiary prevention are aimed at "early diagnosis and response" and "treatment, work reinstatement, etc." respectively, and targeted at individual subjects, primary prevention aimed at averting problems before they occur is not geared only toward the individual but also toward the overall work environment or organization (See Figure 4). In other words, mental health measures thus far have largely focused on individuals' stress and resulting disorders, and aimed to alleviate stressors and achieve early diagnosis and treatment of individuals. However, when the focus is broadened to the entire organization, it becomes necessary to enhance the organization's resources accordingly. Organization-wide efforts may include achieving work-life balance, providing appropriate career opportunities to employees, heightening overall productivity and boosting employee morale. The pursuit of such efforts cannot be the sole responsibility of industrial health staff, but also requires close coordination with management and the human resources division. There are commonalities between training for cultivation of human resources, heretofore led by management, and primary-prevention mental health training conducted by industrial health staff, and integrating the two appears to be a promising means of boosting the ease and effectiveness of preventive measures. For example, Japanese companies' human resources training often incorporates "leadership theory," focusing on questions like "What makes a leader who motivates others?" and "What makes a leader who advances the organization?" Apply similar perspectives to mental health care by management and supervisors, and we may observe that of the three commonly noted leadership styles (transformational, transactional, and laissez-faire) (Burns 1978; Bass and Avolio 1990), laissez-faire leadership is the most likely to lead to mental health issues among subordinates (Vartia 1996), while transformational leadership is the least likely to do so and the most conducive to high levels of employee motivation. These correlations are becoming increasingly clear (Tims, Bakker, and Xanthopoulou 2011; Waqas 2012), and combining perspectives in this way allows management-level personnel to learn mental health care approaches that avert disorders among subordinates while they are studying leadership. Also, comparing general communication skills in business with the cognitive-behavioral approaches and problem-solving methods of self-care, we find that while terminology and perspectives may differ, the basic concepts have much in common.

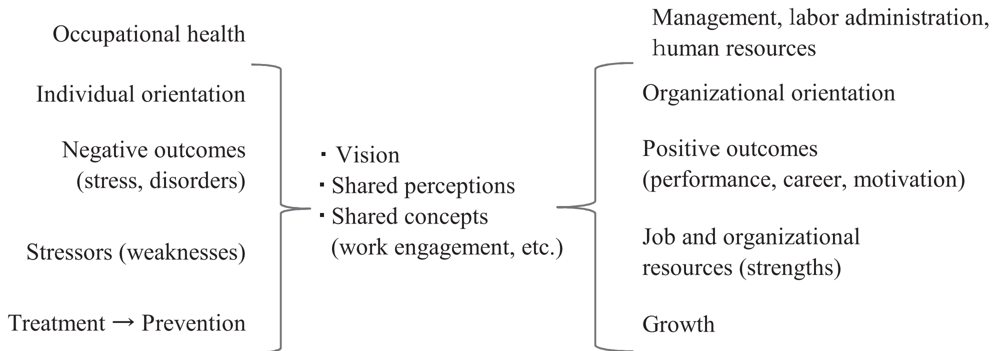
As the above indicates, there is a need for effective channels of communication between industrial health staff, human resources divisions and management, and one concept that can help to establish a shared perspective is that of "work engagement" (Schaufeli et al. 2002). Work engagement is defined as having three elements: dedication (seeing one's work as meaningful and significant), absorption (concentrating fully on work), and vigor (deriving stimulation from work and being energetic). The opposite of work engagement is



Source: Adapted from Kompier and Cooper (1999, 18).

Figure 4. Mental Health in the Workplace: Changing Views of Prevention

"burnout." According to meta-analysis of correlations between work engagement and outcomes, employees with high levels of work engagement enjoy good mental and physical health, adopt positive attitudes and take the initiative at work, and have high levels of job satisfaction. Furthermore, studies have shown that food service businesses where employees have strong work engagement enjoy outstanding sales (Xanthopoulou et al. 2009), and that at hotels and restaurants where employees' work engagement is strong, customer satisfaction and repeat customer rate are high (Salanova et al. 2005). In other words workers with high levels of engagement are not only healthier but work more vigorously and contribute to business performance. While some employers may not recognize the need for mental health care measures (Japan Institute for Labour Policy and Training 2011), there are few employers uninterested in boosting sales, and the concept of work engagement can serve to motivate employers in this category. A questionnaire survey on corporate productivity by the Japan Productivity Center (2008) found that among management issues seen as taking on urgent importance in the future, "boosting employee motivation" ranked third following "creating added value for products and services" and "strengthening marketing and sales frameworks." Work engagement is a concept highly compatible with the concerns of businesses interested in increasing employee motivation. Incidentally, factors determining work engagement are categorized into job resources (support from supervisors and co-workers, latitude to make decisions, growth opportunities, etc.) and personal resources (self-efficacy,



Source: Partially adapted from figure prepared by Akihito Shimazu.

Figure 5. Future Outlook for Mental Health in the Workplace

self-esteem, etc.) (Halbesleben 2010). Incorporation of these perspectives can enhance training for self-care, training for care by management and supervisors, and improvement of work environments, and strengthen employees' work engagement.

As I have described, Japan's future outlook for prevention of mental disorders in the workplace depends on industrial health staff, human resources divisions, and management not only maintaining close communication, but also sharing a broad vision and common goals, cooperating with and supplementing one another's functions, and working together to develop effective measures (See Figure 5).

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What Types of Companies Take a Proactive Approach to Mental Health?

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The author analyzed individual data from the JILPT-implemented "Research on Mental Health Management in the Workplace" and studied factors that influence workplace mental health. In analyzing individual data, the author looked at the influence that explanatory variables have on four explained variables, using past experimental studies as a reference. Viewed comprehensively, the results of analyses reveal the following four important findings. (i) Differences among business categories: Analysis showed that those categories showing the most concern for mental health are "electricity, gas, heat supply and water" and "information and communications," while those showing the least concern include "transport and postal services," "wholesale and retail trade" and "eating and drinking places, accommodations." (ii) Differences depending on size of business establishment. Even when controlling for the influence of various variables, larger enterprises tend to have greater concern for mental health. (iii) The issue of non-regular employees: working as a non-regular employee appears to bring disadvantages in terms of mental health. However, many enterprises do not consider changes in the number of non-regular employees as related to mental health issues. (iv) Treatment of employees on sick leave. Enterprises that take treatment of employees on sick leave more seriously tend to have more concern for mental health, regardless of their size. From the above results, it is thought that giving priority to specific business categories, small and medium-size enterprises, non-regular employees, and other vulnerable populations will provide a shortcut to the resolution or alleviation of mental health issues.

I. Mental Disorders in the Workplace

"I tend to be absent from work." "I can't go to work." "I can't do my job because I can't concentrate." "I have a hard time listening to people." "I often think I'm worthless." "I feel like I want to die."

Anyone can experience mental symptoms such as these. According to the Organization for Economic Cooperation and Development (OECD), on average 5% of the working population suffers from a severe mental disorder such as schizophrenia, and 15% suffers from a moderate mental disorder such as depression (OECD 2012). Furthermore it has been reported that in 2005, 26% of the U.S. adult population suffered from a mental disorder continuously for at least one year (Dewa and McDaid 2011, 36).

The OECD classifies mental disorders as "severe mental disorders (SMD)," such as

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schizophrenia; "moderate mental disorders," such as depression; and "mild mental disorders." The latter two are classified as "common mental disorders (CMD)" (OECD 2012, 19). The OECD uses these classifications as a framework for discussions of mental disorders in the workplace.

According to the OECD, incidences of mental disorder have not suddenly increased in recent years; rather, mental disorders have afflicted considerable numbers of people for decades. However, there is a general perception that they have been on the rise recently. This is likely due to society's increasing concern with mental disorders, greater awareness of the issue among the general public, and greater recognition of the extent of the problem among psychiatrists and other experts (OECD2012, 32–33).

According to the Ministry of Health, Labour and Welfare (MHLW) survey, *Seishin Shogai-to no Rosai Hosho Jokyo* [Status of workers' compensation for mental disorders, etc.] (conducted by the Compensation Division, Workers' Compensation Department, Labour Standards Bureau, MHLW), there were 819 applications for workers' compensation in FY2006. This number subsequently increased steadily to 952 in FY2007, 927 in FY2008, 1,136 in FY2009, 1,181 in FY2010, and 1,272 in FY2011. It is thought that the increase from FY2008 to FY2009 was partly due to the effects of corporate downsizing resulting from the global financial crisis.

The OECD notes the following key characteristics of mental disorders (OECD 2012, 26–29): Mental disorders often appear in childhood and adolescence.

(i) In many cases, mental disorders go unnoticed and untreated for many years.
(ii) Mental disorders often co-occur with physical health problems.
(iii) Mental disorders tend to be quite chronic, going through cycles of deterioration and improvement..
(iv) Mental disorders are frequently accompanied by physical symptoms.

The above characteristics give rise to a variety of challenges on the job (OECD 2012, 40–79):

(i) The unemployment rate is high in cases of mental disorder. In 10 OECD countries, approximately 40 to 60% of SMD cases and 50 to 70% of CMD cases are employed [OECD 2012, 30], representing a gap of about 30 percentage points for those with a severe mental disorder and 10–15 percentage points for those with a moderate disorder, compared to those with no disorder.)
(ii) People with mental disorders tend to have lower incomes.
(iii) Unemployment tends to worsen mental disorders; however, disorders are alleviated with employment.
(iv) While employment in a high-quality job alleviates mental disorders, employment in a poor-quality job can exacerbate them (here, "high/poor-quality job" refers to employment contract period, working hours, job tenure, wages, job satisfaction, and skills-demand match [OECD 2012, 56–57]).
(v) When a mental disorder exists, productivity tends to fall due to illness-related absen-

teeism, or from “presenteeism” (a state in which a person attends work but is unable to execute duties to his/her full potential).

The OECD identifies the following three policy interventions as effective for people dealing with mental disorders (OECD 2012, 208).

(i) Securing good working conditions which avoid job strain on the one hand, and sound management practices on the other, to avoid the development of work-related mental health problems and to minimize productivity losses of workers caused by such problems;

(ii) Systematic monitoring of sick-leave behavior to detect longer-term or repeated absences as early as possible and manage those by providing immediate retention support; and

(iii) Helping employers avoid unnecessary dismissal caused by mental health problems through the provision of adequate incentives, information, and support.

II. The Role of This Paper

This paper aims to provide an empirical analysis of mental health in Japanese workplaces, and of enterprises’ mental health-related measures. Its objective is to shed light on the kinds of enterprises in which mental health constitutes a major challenge, as well as the kinds of enterprises that have strong concern with mental health, rather than to examine mental health problems as they affect individual workers or to discuss specific legal systems or individual enterprises. To achieve this objective, the author has analyzed individual data from a large-scale questionnaire survey of enterprises that was recently conducted by JILPT.

As will be described later, a few questionnaire surveys on mental health and related measures in the workplace are being conducted. The JILPT survey to be discussed in detail below is one of them. However, there is a problem with most of these surveys.

In general, surveys on workplace mental health conducted thus far have provided no more than cross-tabulated results. In other words, they have not provided research results that are based on various controlled variables. While it must be evident that large enterprises are taking a more proactive approach to mental health measures than their smaller counterparts, when controlling for other attributes, it is not known exactly which attributes have an influence when controlling for enterprise size. This is highly unfortunate. The author was unable to find any examples of empirical studies (in the sense described above) that employ individual data from questionnaire surveys on mental health conducted in Japan.[1] For this reason, the material covered in this paper is of great significance.

Even overseas, it appears that little research bearing on the topic of this paper has

[1] Although it is possible that similar research is taking place in fields outside the author’s realm of expertise, such as in medicine or psychology, the author was unable to find any examples in the sense of “results using individual survey data on mental health initiatives by business enterprises.”

been conducted. As a comprehensive work on mental health (Schulz and Rogers 2011) points out, little research on workplace mental health has focused on the measures adopted by enterprises.

An exception is Schultz et al. (2011). This paper conducted an analysis of individual data for 83 enterprises, which were extracted from a database of Canadian enterprises with at least 100 employees and then surveyed in detail. In addition to their size, business category, and other items, the enterprises were asked about areas in which mental health is a concern, focusing on three specific points—"work personality,"[2] "work performance"[3] and "symptomatology."[4] They were also asked about "actual mental health measures that are being implemented" with a focus on eight categories, namely "stamina,"[5] "concentration,"[6] "organization,"[7] "memory,"[8] "effective work with supervisors,"[9] "interaction with coworkers,"[10] "difficulty handling stress"[11] and "attendance issues."[12]

Schultz and others then conducted an empirical study using the three previously mentioned factors that influence "concern with mental health" and eight "implemented mental health measures" as explained variables. The main results obtained are as follows (Schultz et al. 2011, 336–38):

(i) Enterprises that have a policy of employing people with mental disorders, or experience employing people with mental disorders, have stronger concern with mental health and are more likely to implement mental health measures.

(ii) Larger enterprises have correspondingly stronger concern with mental health (particularly in terms of "work performance") and are more likely to implement mental health measures (particularly in terms of "effective work with supervisors" and "at-

[2] This item was further broken down into 13 sub-items, including "adjusting to the work environment," "being reliable" and "being on time." For details, see Schultz et al. (2011, 329).

[3] This item was further broken down into 12 sub-items, including "being able to perform job tasks safely" and "being able to tolerate the working conditions" (Schultz et al. 2011, 329).

[4] This item was further broken down into 14 sub-items, including "having the ability to maintain emotional stability" and "bizarre behaviors" (Schultz et al. 2011, 330).

[5] This item was further broken down into nine sub-items, including "flexible scheduling" and "allow longer work breaks" (Schultz et al. 2011, 331).

[6] This item was further broken down into 10 sub-items, including "divide assignments into smaller tasks" and "allow for frequent breaks" (Schultz et al. 2011, 331).

[7] This item was further broken down into five sub-items, including "make daily to-do lists" and "use calendars to mark meetings and deadlines" (Schultz et al. 2011, 331).

[8] This item was further broken down into 12 sub-items, including "provide written instructions" and "allow additional training time" (Schultz et al. 2011, 332).

[9] This item was further broken down into seven sub-items, including "allow for open communication with managers" (Schultz et al. 2011, 332).

[10] This item was further broken down into four sub-items, including "provide sensitivity training to coworkers and supervisors" (Schultz et al. 2011, 332).

[11] This item was further broken down into six sub-items, including "refer to counseling and employee assistance program" (Schultz et al. 2011, 333).

[12] This item was further broken down into nine sub-items, including "provide self-paced work load and flexible hours" and "allow employee to work at home" (Schultz et al. 2011, 333).

tendance issues").

(iii) Of implemented mental health measures, measures concerning "stamina" were influenced by business category and "work personality." Likewise, implemented mental health measures related to "organization" and "attendance issues" were influenced by "work personality," while measures related to "concentration," "memory," "effective work with supervisors" and "difficulty handling stress"[13] were influenced by business category and enterprise size.

Key conclusions that can be drawn from these results are that business category and enterprise size, etc. have an influence on "concern with mental health"; business category, enterprise size, and the enterprise's "concern with mental health" have an influence on "implemented mental health measures"; and "policy of employing people with mental disorders" and "experience employing people with mental disorders" have an influence on greater "concern with mental health" and "implemented mental health measures."

Here, important points that relate to this paper are the use of "concern with mental health" and "implemented mental health measures" as explained variables, and examination of actual conditions through analysis of mental health in Japanese workplaces, using explanatory variables such as business category and enterprise size.

III. Main Results of Enterprise Surveys

This section outlines major surveys on workplace mental health. Among them are surveys conducted on an ongoing basis, such as that by the Japan Productivity Center's Mental Health Institute. Details on the survey's results are published in the "White Paper on Mental Health of Workers." The most recent survey results concerning enterprises are contained in the 2010 edition. Of these, the following results relate strongly to this paper (Mental Health Institute, Japan Productivity Center 2010). It should be noted that all enterprises targeted by the survey are listed (relatively major) companies.

(i) Mental health measures are ranked by frequency of response as follows: "education for managers" (70.0%), "counseling for employees who work long hours" (63.8%), "establishment of a reinstatement support scheme for employees on sick leave" (49.5%), "training for regular employees" (48.6%), "delegation to an external consultation body" (48.0%), "establishment of an in-house consultation office" (47.7%), "provision of mental health checkups (including stress checks)" (43.0%), "publicity through company bulletins and pamphlets" (40.6%), "medical interviews during health checkups" (34.4%), "delegation to occupational health staff" (32.5%), "crea-

[13] Schultz et al. (2011, 334–36). However, no specific explanation of which business categories have an influence is provided.

tion of work environments that boost individual and organizational health" (18.6%), "training of employee counselors and listeners" (10.8%), "no action in particular" (5.0%), "training for employees' families" (3.7%) and "other" (4.0%).

(ii) Listed enterprises in general markets have greater concern with mental health measures than those in emerging markets, manufacturing businesses have more concern than non-manufacturing businesses, and a enterprises with a greater number of employees have a correspondingly higher degree of concern.

In the past, the Japan Productivity Center's Mental Health Institute has studied the relationship between management indicators for enterprises and mental health (Mental Health Institute, Japan Productivity Center 1999). This study found that there is a correlation between change in the number of employees and workers' mental health, and specifically that a decrease in number of employees is negatively correlated with mental health.

Yamaoka (2012, 65–69) examined the causal relationship between stress and several items including management indicators and human resources systems, using individual data from a JILPT survey. This study found that changes in the number of employees, satisfaction with evaluation and treatment, skills development, and other items have an influence on stress.

The following is an outline of the JILPT survey used for analysis in this paper (hereafter "the JILPT survey") (JILPT 2012).

(i) With a business establishment database prepared by Teikoku Databank as the parent set, 14,000 private business establishments having at least 10 employees were extracted through random sampling and stratified by industry and establishment size. Questionnaires were distributed to the extracted establishments, with responses collected from 5,250 establishments (recovery rate of 37.5%). Questionnaire distribution and collection took place in September and October of 2010 (the survey base point was September 1, 2010). Responding establishments were tabulated based on sampling weighted to the extracted parent set number.

(ii) A relatively large number of enterprises in the "medical, health care and welfare," "information and communications" and "manufacturing" industries responded that "there are employees suffering from mental disorders."

(iii) The survey did not ask for the actual number of employees suffering from mental disorders, out of concern that doing so would lower the recovery rate.

(iv) The positive response rate for the item "there are employees who took leave for at least one month or left employment due to mental health issues during the past one year" was highest in the "information and communications" industry, followed by "scientific research, professional and technical services" and "medical, health care and welfare."

(v) The most common response given as the cause of mental health issues was "the individual's personality issues."

(vi) Larger establishments had correspondingly higher reinstatement rates for employees suffering from mental disorders.

Table 1. Are Mental Health Measures Being Implemented?

Size of establishment	Implementing	Not implementing	Total (N)
Fewer than 50 employees	47%	53%	100% (66,528)
50 to 99 employees	54%	46%	100% (21,249)
100 to 299 employees	57%	43%	100% (22,559)
300 to 999 employees	78%	22%	100% (7,022)
1,000 employees or more	81%	19%	100% (2,385)
Total	53%	47%	100% (119,743)

Source: Tabulated by the author from individual data of JILPT (2012).
Notes: 1. Tabulated based on sampling weighted to the extracted parent set.
2. Cases corresponding to "forestry," "mining and quarrying of stone and gravel" and "others" were excluded from the business categories.
3. Non-responses were excluded.
4. Size of establishment refers to "total number of employees of the establishment."

(vii) Approximately half of the establishments responded that they "are implementing" mental health measures. Business categories with high implementation rates were "electricity, gas, heat supply and water," "real estate and goods rental and leasing" and "information and communications." Larger establishments were more likely to implement measures, as were establishments responding that they had employees who took leave for at least one month.

(viii) The content of mental health measures implemented included "establishment of a desk to receive consultations from workers" (55.7%); "provision of education, training, and information to managing supervisors" (51.0%); "provision of education, training, and information to workers" (41.7%); "review and discussion of mental health measures in health committee meetings, etc." (32.2%); "appointment of a person in charge of administering mental health care" (24.3%); "use of questionnaires to survey stress among workers" (20.5%); "support for reinstatement" (16.8%); "measures utilizing medical institutions" (15.2%); "provision of education, training, and information to on-site occupational health staff" (14.5%); "evaluation and improvement of working environments, etc." (14.5%); "formulation and execution of problem resolution plans concerning mental health care" (13.7%); "measures utilizing other external organizations" (11.2%); "measures utilizing regional occupational health centers" (5.1%); "measures utilizing prefectural occupational health promotion centers" (3.7%).

The following presents the results of cross tabulation of mental health measures appearing in the JILPT survey. Due to space limitations, only cross tabulation tables that are based on establishment size are provided.

Table 1 shows whether businesses are implementing mental health measures or not. The characteristics of Table 1 were mentioned above and are thus omitted here.

Table 2. Content of Mental Health Measures (by Size of Establishment, Multiple Responses)

	Size of establishment (No. of employees)					
	< 50	50–99	100–299	300–999	1,000 <	Total
(1) Review and discussion of mental health measures in health committee meetings, etc.	24%	42%	43%	40%	44%	33%
(2) Formulation and execution of problem resolution plans concerning mental health care	12%	14%	15%	17%	43%	14%
(3) Appointment of a person in charge of administering mental health care	19%	25%	36%	35%	41%	26%
(4) Provision of education, training, and information to workers	38%	41%	49%	53%	80%	43%
(5) Provision of education, training, and information to managing supervisors	52%	49%	51%	65%	86%	53%
(6) Provision of education, training, and information to onsite occupational health staff	10%	15%	19%	23%	32%	15%
(7) Evaluation and improvement of working environments, etc.	16%	14%	12%	15%	18%	15%
(8) Establishment of a desk to receive consultations from workers	58%	46%	58%	69%	91%	58%
(9) Use of questionnaires to survey stress among workers	17%	20%	25%	29%	48%	21%
(10) Support for reinstatement	10%	20%	23%	30%	51%	18%
(11) Measures utilizing regional occupational health centers	5%	8%	3%	5%	2%	5%
(12) Measures utilizing prefectural occupational health promotion centers	3%	7%	4%	3%	3%	4%
(13) Measures utilizing medical institutions	16%	15%	17%	15%	22%	16%
(14) Measures utilizing other external organizations	8%	13%	13%	14%	46%	12%
Total (N)	100% (29,700)	100% (11,299)	100% (12,602)	100% (5,467)	100% (1,855)	100% (60,923)

Source: Same as Table 1.
Notes: 1–4. Same as Table 1.
5. For mental health measures, the category “other” was excluded.

Table 3. Current Priority Placed on Mental Health Measures

Size of establishment	Top priority issue	Fairly important issue	Only a minor issue	Not an important issue	Total (N)
< 50 employees	4%	47%	35%	14%	100% (67,497)
50 to 99	4%	51%	34%	11%	100% (21,209)
100 to 299	9%	55%	31%	5%	100% (22,939)
300 to 999	10%	66%	17%	7%	100% (7,152)
1,000 <	18%	59%	8%	15%	100% (2,415)
Total	6%	51%	32%	12%	100% (121,212)

Source: Same as Table 1.
Notes: 1–4. Same as Table 1.

Table 4. Future Intentions regarding Mental Health Measures

Size of establishment	Measures must be reinforced	Measures should probably be reinforced	There is little need to reinforce measures	No need to reinforce measures	Total (N)
< 50 employees	12%	58%	22%	8%	100% (67,220)
50 to 99	15%	59%	21%	5%	100% (20,946)
100 to 299	22%	57%	20%	2%	100% (22,837)
300 to 999	35%	50%	13%	2%	100% (7,160)
1,000 <	25%	56%	6%	13%	100% (2,409)
Total	16%	57%	21%	6%	100% (120,572)

Source: Same as Table 1.
Notes: 1–4. Same as Table 1.

Table 2 shows the content of mental health measures that are being implemented. For items (3), (4), (5), (6), (8), (9), (10), and (13), there is a correlation between establishment size and implementation rate. Meanwhile, for items (2), (4), (5), (8), (9), (10), and (14), the implementation rate various considerably depending on whether or not the business has at least 1,000 employees. Thus, it is thought that the size of an establishment has considerable influence.

Table 3 looks at the priority currently placed on mental health care measures. While it is evident that larger enterprises tend to have higher response rates for both “top priority issue” and “fairly important issue,” the response rate for “fairly important issue” is higher for businesses in the 300–999 employee range than employees with at least 1,000 employees. This may be because measures are already being implemented at a high rate at companies with at least 1,000 employees.

Table 4 looks at future intentions regarding mental health care measures. Relatively large enterprises have higher response rates for “measures must be reinforced”; however, there is little difference among the size categories for “measures should probably be

Table 5. Increase/Decrease in Employees Suffering from Mental Disorders Compared to Three Years Prior (Regular Employees)

Size of establishment	Upward trend	Slight upward trend	Roughly the same	Slight downward trend	Downward trend	No employees suffer from mental health issues	Total (N)
< 50 employees	2%	9%	24%	4%	6%	56%	100% (59,979)
50 to 99	6%	19%	29%	4%	9%	34%	100% (19,226)
100 to 299	5%	24%	34%	5%	9%	24%	100% (21,772)
300 to 999	6%	29%	38%	3%	6%	18%	100% (7,286)
1,000 <	14%	33%	38%	5%	2%	9%	100% (2,376)
Total	4%	15%	28%	4%	7%	42%	100% (110,639)

Source: Same as Table 1.
Notes: 1–4. Same as Table 1.
5. Cases corresponding to the response option "there are no workers of that classification in this establishment" were excluded.

reinforced." For "there is little need to reinforce measures," the response rate is higher for enterprises with fewer than 300 employees than for those with at least 300 employees.

Table 5 looks at increases and decreases in the number of employees suffering from mental disorders compared to three years prior. The table only tabulates responses for "regular employees." For both "trending upward" and "trending upward slightly," response rates rise proportionally with enterprise size. However, looking at "no employees are suffering from mental disorders," the fact that the response rate rises as enterprise sizes grow smaller is highly intriguing. It seems possible that this phenomenon results from small-scale enterprises' not being aware of any cases, rather than there actually not being any.

IV. Multi-Variable Regression Analysis

This section seeks to identify factors that influence mental health in the workplace based on a review of the literature and the cross-tabulated results described above.

The results of studies undertaken thus far suggest that business category, enterprise size, change in number of employees, concern with mental health, policy of employing people with mental disorders, experience employing people with mental disorders, and other factors serve as important explanatory variables influencing mental health in the workplace. Of these, the first three variables have items relating to them on the JILPT survey.

Additionally, with regard to "concern with mental health," the author uses the item "current priority and future intentions regarding mental health care measures" as a proxy variable. While this item focuses on two points (namely, "current priority" and "future intentions"), the author uses "current priority" only, in order to emphasize current interest. Available responses are arranged in a four-point scale ranging from "top priority issue" to

"not an important issue."

For "policy of employing people with mental disorders," the author uses a questionnaire item pertaining to "reinstatement of employees who have taken mental health leave." The item used is "procedures and rules applying to reinstatement." Respondents are asked to choose one response from "in-house procedures and rules for reinstatement have been established," "reinstatement procedures are determined by staff in charge of human resources based on consultations held in each case" and "reinstatement procedures are left to each worksite supervisor to determine." "Policy of employing people with mental disorders," as it appears in the reviewed literature, likely refers to "employment policy for new hires"; however, the literature does not clarify this point in detail. Moreover, there are no questionnaire items concerning this point in the JILPT survey. Thus, while this paper makes do with focusing on reinstatement regulations, there is a possibility that differences in character will arise between enterprises that have a policy of hiring people with mental disorders and those that do not.

Lastly, for "experience employing people with mental disorders," the author uses a question item concerning "the situation of workers currently dealing with mental health issues." Available responses are arranged on a five-point scale that ranges from "a large number considering the business's size" to "few" with "none at all" added. Because "experience employing people with mental disorders" is thought to cover both the past and the present, this item differs from the questionnaire item on the JILPT survey. Unfortunately, however, there are no similar items in the survey, and thus the author has chosen to use this item. Explained variables are set as follows.

First is the "presence or absence of mental health measures." This is a binary variable comprised of "implementing measures" and "not implementing measures."

Second is "substantiality of mental health measures." "Content of mental health measures" contains 15 items, including "other." However, qualitative comparison of the content of individual measures is difficult. For this reason, the author interprets higher numbers as indicating that the implementation of mental health measures is "more substantial" and uses a maximum of 14 items (excluding "other") as continuous variables.

Third is "current priority placed on mental health (concern with mental health)." Although this is also an explanatory variable for the first and second explained variables, it should also be viewed as an explained variable in order to examine connections with research conducted thus far. As mentioned previously, there are two viewpoints considered here—namely, "current priority" and "future intentions"—however, the author has chosen to look at "current priority."

The fourth is "upward/downward trends in the number of employees suffering from mental disorders." Although this information is not obtained as numerical data (i.e. as real numbers or ratios), the author has chosen to use it to examine influence on upward or downward trends in targeted enterprises compared to three years prior. Available responses are arranged on a five-point scale from "trending upward" to "trending downward," with

"no employees suffer from mental disorders" added. However, the response "no employees suffer from mental disorders" is not compatible with the goal of comparing the current situation with three years prior. In other words, it is unclear whether this response means that "there have been no such employees since three years ago" or "there are no such employees present now (although there were some three years ago)." Consequently, in examining "upward/downward trends," the author has employed a sample excluding the response "no employees suffer from mental disorders."

It should be noted that that "current priority on mental health measures," which is a proxy variable for "concern with mental health," is primarily used as an explanatory variable. However, its endogeneity with the first, second, and fourth explained variables is in doubt. In other words, there may be problems in discerning whether "implementing measures" (or measures being "substantial" or "increasing") results from "high degree of concern," or vice versa. For this reason, the author conducts the analyses using instrumental variables that influence "concern with mental health" and are thought to have a strong independent association with explained variables.

Tables 6 to 9 show the results of the analyses on the four explained variables mentioned above.

Given their cumbersome nature, here we will refrain from discussing the details of the analyses presented in Tables 6 to 9. Table 10 presents a comprehensive summary of the results of the four analyses. The main results of analyses conducted for this paper, based on Table 10, are outlined below. The explanatory variables will be examined in the order they are presented in the tables so that the reader may reference the tables while reading (while the subject of the analyses is "establishments," the following will refer to "enterprises" in the interest of using general terminology).

It is found that "current priority placed on mental health" has no influence on analysis of (1), which uses instrumental variables. In other words, it is thought that the relative importance placed on mental health does not influence whether or not actual measures are implemented. However, it does have an influence on analysis of (2). Specifically, enterprises that place relatively greater emphasis on mental health have a correspondingly higher number of implemented measures. It should be noted, however, that the number of employees suffering from mental disorders is trending upward. Because instrumental variables are also used in this analysis of (4), temporarily eliminating the reverse causal relationship of "the number of employees suffering from mental disorders is growing and therefore emphasis is placed on mental health" can be considered for the time being. Accordingly, this result is that "the number of employees suffering from mental disorders is trending upward despite the emphasis placed on mental health." Because the substantiality of measures is on the positive side, it appears likely that although emphasis is placed on mental health, mental health measures are not necessarily of higher quality.

Fairly obvious differences are apparent with regard to "business category." A comprehensive look at the analyses of explained variables (1) to (4) shows that the business

Table 6. Influence on Implementation/Non-Implementation of Mental Health Measures

Explained variable: "Implementing" dummy [implementing = 1, not implementing = 0] Method: IV probit	N = 86,067 Wald chi2(29) = 10075.44 (p<0.000) Wald test = 110.26 (p<0.000)		
Explanatory variables	Coefficient	Standard error	
Current priority placed on mental health [1 = not an important issue to 4= top priority issue]	0.061	0.074	
Business category [RG: Manufacturing]			
Construction	-0.009	0.022	
Electricity, gas, heat supply and water	1.228	0.064	**
Information and communications	0.545	0.032	**
Transport and postal services	-0.104	0.018	**
Wholesale and retail trade	-0.165	0.013	**
Finance and insurance	0.818	0.027	**
Real estate and goods rental and leasing	-0.007	0.045	
Scientific research, professional and technical services	0.131	0.047	**
Eating and drinking places, accommodations	-0.430	0.026	**
Lifestyle and amusement-related services	-0.812	0.054	**
Education, learning support	-0.080	0.043	*
Medical, health care and welfare	-0.367	0.024	**
Compound services (post offices, agricultural cooperatives, etc.)	0.508	0.045	**
Other services (services not included in other classifications)	0.117	0.017	**
Size of establishment [RG: 100 to 299 employees]			
Fewer than 50 employees	-0.070	0.014	**
50 to 99 employees	-0.059	0.018	**
300 to 999 employees	0.943	0.029	**
1,000 employees or more	1.080	0.052	**
Change in number of regular employees [1=20% or more decrease to 7=20% or more increase]	0.036	0.004	**
Change in number of non-regular employees [1=20% or more decrease to 7=20% or more increase]	-0.004	0.004	
Reinstatement of employees on leave [RG: Procedures/rules exist]			
Consultation in each instance	-0.310	0.012	**
Left to supervisor	-0.675	0.014	**
Situation of workers dealing with mental health issues [RG: Normal considering establishment size]			
Few considering establishment size	-0.167	0.015	**
Somewhat few considering establishment size	-0.126	0.022	**
Fairly many considering establishment size	-0.287	0.028	**
Many considering establishment size	0.672	0.054	**
None at all	-0.153	0.022	**
Change in sales [1=considerably lower to 5=considerably larger]	0.045	0.005	**
Constant	0.147	0.189	

Source: Same as Table 1.

Notes: 1–3. Same as Table 1.

4. Business category, size of establishment, change in number of regular employees, change in number of non-regular employees, reinstatement of employees on leave, situation of workers dealing with mental health issues, change in sales, change in overall amount of work at workplace, and 3-year change in personnel distribution were used as instrumental variables for "Current priority placed on mental health."
5. **P<0.05; *P<0.1.
6. "RG" indicates the reference group of the dummy variable.

Table 7. Influence on Substantiality of Mental Health Measures

Explained variable: Number of measures implemented [1 to 14] Method: Two-stage least squares	N=47,441 Wald chi2(29)=7503.31 (p<0.000) Sargan chi2(1)=11.9617 (p<0.001) Basmann chi2(1)=11.9569 (p<0.001)		
Explanatory variables	Coefficient	Standard error	
Current priority placed on mental health [1 = not an important issue to 4= top priority issue]	3.427	0.400	**
Business category [RG: Manufacturing]			
Construction	0.291	0.057	**
Electricity, gas, heat supply and water	0.583	0.097	**
Information and communications	0.105	0.070	
Transport and postal services	-0.698	0.056	**
Wholesale and retail trade	-0.183	0.034	**
Finance and insurance	-0.873	0.106	**
Real estate and goods rental and leasing	-0.051	0.112	
Scientific research, professional and technical services	-0.487	0.117	**
Eating and drinking places, accommodations	0.087	0.072	
Lifestyle and amusement-related services	-0.228	0.154	
Education, learning support	-1.263	0.104	**
Medical, health care and welfare	-0.311	0.065	**
Compound services (post offices, agricultural cooperatives, etc.)	-0.306	0.099	**
Other services (services not included in other classifications)	-0.205	0.041	**
Size of establishment [RG: 100 to 299 employees]			
Fewer than 50 employees	-0.341	0.042	**
50 to 99 employees	0.205	0.059	**
300 to 999 employees	0.359	0.044	**
1,000 employees or more	1.679	0.117	**
Change in number of regular employees [1=20% or more decrease to 7=20% or more increase]	-0.063	0.009	**
Change in number of non-regular employees [1=20% or more decrease to 7=20% or more increase]	-0.005	0.009	
Reinstatement of employees on leave [RG: Procedures/rules exist]			
Consultation in each instance	-0.533	0.037	**
Left to supervisor	-0.673	0.089	**
Situation of workers dealing with mental health issues [RG: Normal considering establishment size]			
Few considering establishment size	-0.052	0.050	
Somewhat few considering establishment size	0.406	0.057	**
Fairly many considering establishment size	0.042	0.065	
Many considering establishment size	0.658	0.102	**
None at all	0.100	0.088	
Change in sales [1=considerably lower to 5=considerably larger]	-0.015	0.018	
Constant	-5.637	1.164	**

Source: Same as Table 1.

Notes: 1–3. Same as Table 1.

4–6. Same as Table 6.

7. The analysis focused solely on establishments that “are implementing” mental health measures.

Table 8. Influence on Current Priority Placed on Mental Health Measures

Explained variable: Current priority placed on mental health [1=not an important issue to 4=top priority issue] Method: Ordered probit	N=90,289 LR chi2(28)=14165.93 (p<0.000) Pseudo R2=0.074		
Explanatory variables	Coefficient	Standard error	
Business category [RG: Manufacturing]			
Construction	-0.009	0.018	
Electricity, gas, heat supply and water	0.160	0.035	**
Information and communications	0.400	0.025	**
Transport and postal services	-0.013	0.015	
Wholesale and retail trade	-0.012	0.011	
Finance and insurance	0.837	0.016	**
Real estate and goods rental and leasing	0.136	0.038	**
Scientific research, professional and technical services	0.084	0.034	*
Eating and drinking places, accommodations	-0.399	0.019	**
Lifestyle and amusement-related services	-0.374	0.042	**
Education, learning support	-0.174	0.035	**
Medical, health care and welfare	-0.017	0.020	
Compound services (post offices, agricultural cooperatives, etc.)	0.340	0.037	**
Other services (services not included in other classifications)	0.003	0.014	
Size of establishment [RG: 100 to 299 employees]			
Fewer than 50 employees	-0.223	0.010	**
50 to 99 employees	-0.271	0.012	**
300 to 999 employees	0.206	0.018	**
1,000 employees or more	0.514	0.028	**
Change in number of regular employees [1=20% or more decrease to 7=20% or more increase]	0.033	0.003	**
Change in number of non-regular employees [1=20% or more decrease to 7=20% or more increase]	-0.001	0.003	
Reinstatement of employees on leave [RG: Procedures/rules exist]			
Consultation in each instance	-0.042	0.009	**
Left to supervisor	-0.459	0.011	**
Situation of workers dealing with mental health issues [RG: Normal considering establishment size]			
Few considering establishment size	-0.245	0.011	**
Somewhat few considering establishment size	-0.246	0.016	**
Fairly many considering establishment size	0.328	0.017	**
Many considering establishment size	0.524	0.042	**
None at all	-0.462	0.010	**
Change in sales [1=considerably lower to 5=considerably larger]	0.072	0.004	**

Source: Same as Table 1.

Notes: 1–3. Same as Table 1.

4. Same as note 5 of Table 6.

5. Same as note 6 of Table 6.

Table 9. Influence on Upward/Downward Trends of Employees Who Suffer from Mental Health Issues

Explained variable: upward/downward trend of employees who suffer from mental health issues [downward trend=1 to upward trend=5] Method: Two-stage least squares	N=49,102 Wald chi2(29)=6266.62 (p<0.000) Sargan chi2(1)=137,749 (p<=0.000) Basmann chi2(1)=138.049 (p<0.000)		
Explanatory variables	Coefficient	Standard error	
Current priority placed on mental health [1 = not an important issue to 4= top priority issue]	1.917	0.081	**
Business category [RG: Manufacturing]			
Construction	0.027	0.034	
Electricity, gas, heat supply and water	-0.211	0.068	**
Information and communications	-0.131	0.041	**
Transport and postal services	0.009	0.028	
Wholesale and retail trade	0.216	0.021	**
Finance and insurance	-0.536	0.040	**
Real estate and goods rental and leasing	-0.208	0.072	**
Scientific research, professional and technical services	-0.484	0.058	**
Eating and drinking places, accommodations	0.430	0.036	**
Lifestyle and amusement-related services	0.226	0.086	**
Education, learning support	0.445	0.063	**
Medical, health care and welfare	0.104	0.032	**
Compound services (post offices, agricultural cooperatives, etc.)	-0.259	0.059	**
Other services (services not included in other classifications)	0.038	0.024	
Size of establishment [RG: 100 to 299 employees]			
Fewer than 50 employees	0.290	0.024	**
50 to 99 employees	0.202	0.022	**
300 to 999 employees	-0.016	0.026	
1,000 employees or more	-0.141	0.045	**
Change in number of regular employees [1=20% or more decrease to 7=20% or more increase]	-0.042	0.007	**
Change in number of non-regular employees [1=20% or more decrease to 7=20% or more increase]	0.005	0.005	
Reinstatement of employees on leave [RG: Procedures/rules exist]			
Consultation in each instance	0.273	0.017	**
Left to supervisor	0.541	0.029	**
Situation of workers dealing with mental health issues [RG: Normal considering establishment size]			
Few considering establishment size	-0.477	0.018	**
Somewhat few considering establishment size	-0.116	0.023	**
Fairly many considering establishment size	0.205	0.027	**
Many considering establishment size	1.144	0.059	**
None at all	-0.677	0.045	**
Change in sales [1=considerably lower to 5=considerably larger]	-0.081	0.007	**
Constant	-1.944	0.216	**

Source: Same as Table 1.
Notes: 1–3. Same as Table 1.
4–6. Same as Table 6.

Table 10. Summary of the Results of the Analyses on Mental Health
(List of Symbols of Statistically Significant Variables)

Influencing factors	Analysis items (1) Presence or absence of mental health measures (+: implementing measures)	(2) Substantiality of mental health measures (+: many = substantial)	(3) Current priority placed on mental health (+: top priority issue)	(4) Upward/downward trend of workers who suffer from mental health issues (+: upward)
Current priority placed on mental health [1 = not an important issue to 4= top priority issue]		+		+
Business category [RG: Manufacturing]				
Construction		+		
Electricity, gas, heat supply and water	+	+	+	−
Information and communications	+		+	−
Transport and postal services	−	−		
Wholesale and retail trade	−	−		+
Finance and insurance	+	−	+	−
Real estate and goods rental and leasing			+	−
Scientific research, professional and technical services	+	−	+	−
Eating and drinking places, accommodations	−		−	+
Lifestyle and amusement-related services	−		−	+
Education, learning support	−	−	−	+
Medical, health care and welfare	−	−		+
Compound services (post offices, agricultural cooperatives, etc.)	+	−	+	−
Other services (services not included in other classifications)	+	−		
Size of establishment [RG: 100 to 299 employees]				
Fewer than 50 employees	−	−	−	+
50 to 99 employees	−	+	−	+
300 to 999 employees	+	+	+	
1,000 employees or more	+	+	+	−
Change in number of regular employees [1=20% or more decrease to 7=20% or more increase]	+	−	+	−
Change in number of non-regular employees [1=20% or more decrease to 7=20% or more increase]				
Reinstatement of employees on leave [RG: Procedures/rules exist]				
Consultation in each instance	−	−	−	+
Left to supervisor	−	−	−	+
Situation of workers dealing with mental health issues [RG: Normal considering establishment size]				
Few considering establishment size	−		−	−
Somewhat few considering establishment size	−	+	−	−
Fairly many considering establishment size	−		+	+
Many considering establishment size	+	+	+	+
None at all	−		−	−
Change in sales [1=considerably lower to 5=considerably larger]			+	−

Source: Same as Table 1.

Notes: 1–3. Same as Table 1.

4. Same as Table 6.
5. The appropriate symbol is displayed for statistically significant variables of less than 5% in the results of the analyses in Tables 6 to 9.
6. Same as Table 6.
7. The analysis of (2) focused solely on establishments that "are implementing" mental health measures.

category taking the most proactive approach to mental health measures is “electricity, gas, heat supply and water.” It appears that this category implements mental health measures, that these measures are substantial, that mental health is seen as a priority issue, and that the number of employees suffering from mental disorders is trending downward. Of course, it should be noted that these results illustrate the situation in September 2010, prior to the Great East Japan Earthquake of March 2011, and therefore the situation may have changed since the disaster. The second most proactive category is “information and communications.” Although the actual substantiality of measures here could not be discerned, responses for all of the other three items demonstrate enthusiasm for mental health measures. Meanwhile “finance and insurance,” “scientific research, professional and technical services” and “compound services,” while scoring low in terms of substantiality of measures, appeared proactive in terms of the other results.

Conversely, “business categories” that appear apathetic toward mental health measures are “transport and postal services,” “wholesale and retail trade,” “eating and drinking places, accommodations,” “lifestyle and amusement services,” “education, learning support” and “medical, health care and welfare.” These categories do not implement mental health measures, have low substantiality in their mental health measures (although this varies depending on the category), and do not consider mental health to be a priority issue (also varies depending on the category). Moreover, almost all have rising numbers of employees suffering from mental disorders.

As for the other categories—namely, “construction,” “real estate and goods rental and leasing” and “other services”— no clear conclusions can be drawn from the results of the analyses.

The results for size of establishment were as predicted. Establishments with “fewer than 50 employees” or “50 to 99 employees” do not implement mental health measures, place relatively little emphasis on mental health, and have increasing numbers of employees dealing with mental health issues. Conversely, establishments with “300 to 999 employees” or “1,000 or more employees” do implement mental health measures, of which many have a high degree of substantiality, place relatively strong emphasis on mental health, and (for those with “1,000 employees or more”) have a decreasing number of employees suffering from mental disorders. Therefore, it can be concluded that, even when factors other than size of establishment are controlled, larger enterprises are more proactive about mental health measures.

Results for “change in number of regular employees” and “change in number of non-regular employees” are also clear in a sense. Specifically, “change in number of non-regular employees” appears to have very little connection with mental health in the workplace. On the other hand, with regard to “change in number of regular employees,” it appears that an “increasing” number of regular employees is correlated with implementation of mental health measures and relative importance placed on mental health. Moreover, enterprises with an increasing number of regular employees appear to be seeing real decreases

in the number of employees suffering from mental disorders. In other words, it appears that enterprises have some degree of concern with the mental health of regular employees, but little concern with that of non-regular employees. As mentioned earlier, past research studies have used the variable "change in number of employees"; however, in this paper, the author distinguishes between "regular employees" and "non-regular employees." It might prove beneficial to future studies, as well, to classify this variable into numbers of regular and non-regular employees, rather than simply "number of employees."

The author uses "reinstatement procedures for employees who have taken leave" as a proxy variable for "policy of employing people with mental disorders," which appeared in the reviewed literature, and clear results were obtained here as well. Specifically, regarding "reinstatement of employees who have taken mental health leave," enterprises giving the response "in-house procedures and rules for reinstatement have been established" are more active in implementing medical health measures than those giving the response "reinstatement procedures are left to staff in charge of human resources, based on consultations held in each instance" or "reinstatement procedures are left to each worksite supervisor to determine." Likewise, these enterprises implement more substantial measures and place relatively greater emphasis on them, and they have declining numbers of employees who suffer from mental health issues (when looking at the table's symbols from the "procedures/rules exist" side). Because size of establishment is controlled, this means that enterprises with more solid "reinstatement procedures for employees who have taken leave" in place are correspondingly more concerned with mental health, even if they are small or medium-size enterprises. Clearly, these results are significant because they indicate that concern with mental health is not necessarily limited to large enterprises.

The influence of "situation of workers currently dealing with mental health issues" is slightly difficult to interpret. Enterprises having "a large number [of such employees] considering the business's size" are more likely to implement mental health measures, implement measures with a high degree of substantiality, and place emphasis on those measures, but also have increasing numbers of employees suffering from mental disorders. This variable is used as a proxy variable for "experience employing people with mental disorders" based on past research. The endogeneity of this explanatory variable with the explained variables (1), (2), (3) and (4) has been in doubt from the very beginning. However, space limitations in this paper make further analysis here difficult. For this reason, the author wishes to address this issue in the future with a more advanced analysis that will incorporate the influence of this variable.

Results for the last item, "change in sales," indicate that enterprises with growing sales emphasize mental health, and have decreasing numbers of employees suffering from mental disorders. However, it has no influence on the presence or absence of mental health measures, or on the substantiality of measures. The author also uses a variable concerning business activity for control purposes; however, as this variable is ambiguous as an ordinal scale, it is probably best to avoid making any clear interpretations here.

V. Summary and Future Issues

This last section will summarize the results of the paper's analyses and discuss research issues for the future. To begin, there are the points in which clear results could not be demonstrated.

"Current priority of mental health" has no influence on whether measures are actually implemented or not, although it does have a positive influence on the number of measures implemented. Meanwhile, the number of employees suffering from mental disorders is trending upward. From these observations, it does not appear that awareness of the relative importance of mental health has much of an influence on the actual circumstances of mental health. Similarly, because the endogeneity of "the situation of workers currently dealing with mental health issues" with individual explained variables is in doubt, it is probably too early to make any determinations based on the results of this paper alone. Also, assessment of "change in sales" requires precise numerical data on business activities.

Additionally, because the author handles the ordinal scales "change in number of regular employees," "change in number of non-regular employees" and other such items as continuous variables, they, like "sales," are no more than "pseudo" explanatory variables. Handling them as dummy variables may be an option, but in fact these are variables that ought to be handled as numerical data. While this presents a thorny problem when issues such as the questionnaire recovery rate are taken into account, the author intends to examine methods that would make it possible for respondents to enter precise numerical values.

In the author's case, what immediately comes to mind when considering workplace mental health issues is long work hours. Based on experience conducting research surveys thus far, the author believes that many people suffer from mental disorders in workplaces that demand long work hours. As work hours and other conditions vary greatly from individual to individual, the best approach would be to conduct simultaneous surveys of enterprises and their employees, since matching sets of data would likely lead to the discovery of even more issues. Although in practical terms it would be difficult to handle data for employees currently on leave or reinstated after leave due to mental disorders, having such micro data would be ideal.

Despite the above-mentioned issues, the analyses presented here did lead to the discovery of several useful facts. First, there are the differences that emerged among the business categories. Examining solely the influence on the four explained variables, it is evident that the category adopting the most proactive approach to mental health measures is "electricity, gas, heat supply and water." In second place is "information and communications" and tied for third place are "finance and insurance," "scientific research, professional and technical services" and "compound services."

Conversely, business categories that do not take a proactive approach to mental health measures are "transport and postal services," "wholesale and retail trade," "eating and drinking places, accommodations," "lifestyle and amusement-related services," "education,

learning support" and "medical, health care and welfare." Although some differences among enterprises in these apathetic categories emerge when viewed in detail, it can generally be concluded that they are unconcerned with mental health. Thus, employees in these categories are at a disadvantage compared to those in other categories.

Enterprise size, as well, is clearly an important factor. Even when the influences of various variables are controlled, larger establishments tend to have greater concern with mental health. This may be because small and medium-size enterprises lack the human and financial resources needed to properly take charge of mental health. One wonders why they cannot initiate some sort of response.

Unfortunately, working as a non-regular employee appears to bring disadvantages in terms of mental health. However, enterprises do not consider changes in the number of non-regular employees as a mental health-related issue.

Moreover, enterprises that take treatment of employees on mental health leave more seriously tend to have more concern with mental health, regardless of their size. Information on particular enterprises' mental health measures would likely help people seeking employment or attempting to change jobs, particularly those dealing with mental health issues.

This paper presents an experimental study of mental health in the workplace, a topic that has received little attention in previous studies. The results presented above suggest that priority should be given to implementing mental health measures for certain business categories, small and medium-sized enterprises, non-regular employees, and other vulnerable populations.

Research on this problem must move forward so that people suffering from mental disorders or dealing with mental health issues have the option of remaining employed, and are not cut off from their workplaces or careers. This topic is not the exclusive province of medical or psychological specialists. Indeed, the author believes that an interdisciplinary approach encompassing a variety of fields could be employed to resolve or alleviate this problem.

Appendix Table: Descriptive Statistics

	N	Average	Standard deviation	Minimum	Maximum
"Implementing" mental health measures dummy [implementing = 1, not implementing = 0]	120397	0.527		0	1
Number of mental health measures implemented [1 to 14]	61936	3.319	2.177	1	14
Current priority placed on mental health [1 = not an important issue to 4= top priority issue]	121875	2.502	0.771	1	4
Upward/downward trend of employees who suffer from mental health issues [downward trend=1 to upward trend=5]	64199	3.076	1.031	1	5
Business category					
Construction	125465	0.057		0	1
Manufacturing	125465	0.258		0	1
Electricity, gas, heat supply and water	125465	0.013		0	1
Information and communications	125465	0.024		0	1
Transport and postal services	125465	0.085		0	1
Wholesale and retail trade	125465	0.256		0	1
Finance and insurance	125465	0.080		0	1
Real estate and goods rental and leasing	125465	0.011		0	1
Scientific research, professional and technical services	125465	0.014		0	1
Eating and drinking places, accommodations	125465	0.038		0	1
Lifestyle and amusement-related services	125465	0.010		0	1
Education, learning support	125465	0.015		0	1
Medical, health care and welfare	125465	0.035		0	1
Compound services (post offices, agricultural cooperatives, etc.)	125465	0.011		0	1
Other services (services not included in other classifications)	125465	0.093		0	1
Size of establishment					
Fewer than 50 employees	124487	0.559		0	1
50 to 99 employees	124487	0.175		0	1
100 to 299 employees	124487	0.187		0	1
300 to 999 employees	124487	0.058		0	1
1,000 employees or more	124487	0.022		0	1
Change in number of regular employees [1=20% or more decrease to 7=20% or more increase]	122483	3.685	1.289	1	7
Change in number of non-regular employees [1=20% or more decrease to 7=20% or more increase]	103779	3.761	1.367	1	7
Reinstatement of employees on leave					
Procedures/rules exist	117173	0.354		0	1
Consultation in each instance	117173	0.465		0	1
Left to supervisor	117173	0.182		0	1
Situation of workers dealing with mental health issues					
Few considering establishment size	122844	0.227		0	1
Somewhat few considering establishment size	122844	0.079		0	1
Normal considering establishment size	122844	0.256		0	1
Fairly many considering establishment size	122844	0.054		0	1
Many considering establishment size	122844	0.010		0	1
None at all	122844	0.374		0	1
Change in sales [1=considerably lower to 5=considerably larger]	119819	2.499	1.079	1	5
Change in overall amount of work at workplace [1=decreased to 5=increased]	123181	3.332	1.177	1	5
3-year change in personnel distribution [1=decreased compared to before to 5=increased compared to before]	124127	2.845	1.103	1	5

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Workaholism and Mental and Physical Health

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In this paper, the author addresses the topic of workaholism as it pertains to the characteristics of long-hour workers and conducts an analysis that focuses primarily on workaholism's relationship with state of health. The analysis was conducted in line with three elements of workaholism that were posited by Spence and Robbins (1992); namely, "work enjoyment," "driven," and "work involvement." In looking at the relationship between these three elements of workaholism and working hours, the analysis showed that people who get more enjoyment from their work, feel more inner drive toward their work, or feel a stronger sense of involvement in their work tend to work longer hours. However, the correlation coefficients in this relationship were not very high. In looking at the correlations among the three elements, the analysis found that the relationship between "driven" and "work involvement" was relatively strong and can be viewed as a negative aspect of workaholism, while their relationship with "work enjoyment," which is a positive aspect, was weak. Furthermore, a multivariate analysis of the impact of the three elements that used state of mental and physical health as an explained variable showed that "driven" has a consistently negative impact on mental and physical health.

I. Definition of "Workaholism" and Previous Research

From the perspective of "workaholism" as it pertains to the characteristics of long-hour workers, the purpose of this paper is to analyze how workaholism relates to mental and physical health. People who work long hours are often referred to as "workaholics." Just as the phrase "addicted to work" does, the term "workaholic" generally carries a negative connotation. Oates (1972, 10), who coined the word "workaholic," defined it as "a person whose need for work has become so excessive that it creates noticeable disturbance or interference with his bodily health, personal happiness, and interpersonal relationships, and with his smooth social functioning." This definition has become well known.

However, some see workaholism has having positive aspects, such as enjoyment of work or the acquirement of many benefits from work. For example, Machlowitz (1981, 161) states that, while there are undesirable aspects of workaholism, "the stereotype that all workaholics are worried, tired, and unhappy is simply not correct." Thus, "workaholism" is defined in various ways based on whether it is seen in terms of positive aspects or negative aspects" (Schaufeli, Taris, and Bakker 2006).

Moreover, a workaholic is often defined as a person who voluntarily works long hours or who is not bothered by working long hours. However, this voluntary aspect comes with two sides: one being a "healthy mental state in which the person is 'genuinely' unbothered by small amounts of overtime work," and the other a "slightly dangerous mental state in which the person 'is being made to think that he wants to work' by some kind of

pressure" (Ogura 2010). This is said to be the difference between being "pulled to work" (i.e., being attracted to work by the enjoyment it produces) and being "pushed to work" (i.e., being driven to work by one's own obsession) (Taris, Schaufeli, and Shimazu 2010).

Various manipulation methods are available for analysis of workaholism. For example, Otake, and Okudaira (2008) defined workaholism as "addiction to long hours of work" and conducted analyses using "did you work more than 60 hours a week during the previous year or not" and "are you working more than 60 hours a week at the time of the survey or not" as dummy variables to determine the degree of addiction in working hours. In addition, they also used a dummy variable showing the characteristics of procrastinating behavior in the form of "as a child, did you wait until the end of summer vacation to do your summer homework assignments or not" in analyses as a coefficient for factors linked to long working hours.

Thus, the trend is toward research studies that primarily focus on psychological trends and behaviors related to addiction to work, particularly in the field of psychology, rather than toward analyses of workaholism that are based on actual working hours (Burke 2006; Schaufeli, Taris, and Bakker 2006). For example, Spence and Robbins (1992) establish three elements of workaholism: "work involvement," "driven," and "work enjoyment."[1] They define a "workaholic" as a person who, compared to ordinary workers, (i) has high involvement in his/her work, (ii) is internally driven to do work, and (iii) cannot get enjoyment from work.

Schaufeli, Taris, and Bakker (2006) defined workaholism as an undesirable state that resembles addiction and conducted an analysis that separated the positive aspects of workaholism (i.e., "work engagement"[2]) from the negative aspects (i.e., "working hard compulsively" [workaholism]).[3] Stated in terms of the three aforementioned elements presented by Spence and Robbins, "work involvement" and "work enjoyment" are high in the former (positive aspects) while "driven" is low, and "work involvement" and "driven" are high in the latter (negative aspects) while "work enjoyment" is low. When arranged on the two axes "activity level" and "attitude toward/perception of work" as shown in Figure 1, "work engagement" shows a high activity level (+) and a positive attitude toward/perception of work (pleasure) (i.e., a feeling of "I want to work"). On the other hand, "workaholism" also shows a high activity level (+) but a negative attitude toward/perception of work (dis

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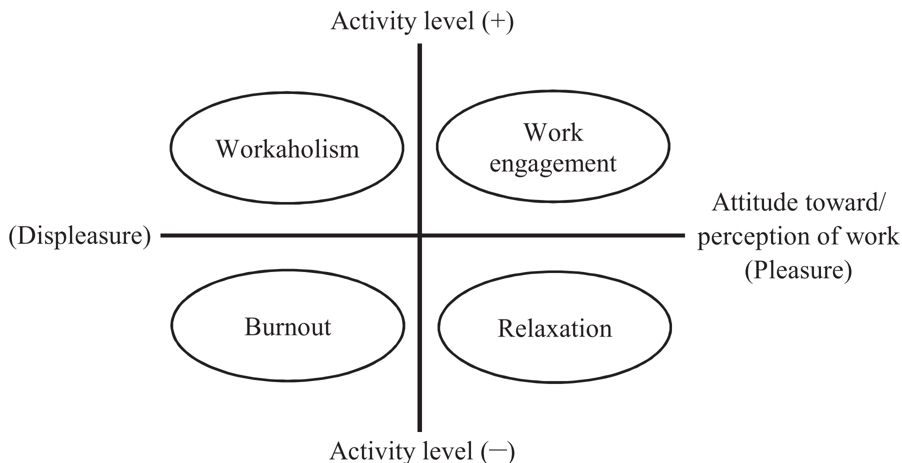
[1] Spence and Robbins prepared a Workaholism Battery comprised of three subscales for "work involvement" (7 items including "Between my job and other activities I'm involved in, I don't have much free time"), "driven" (7 items including "I often find myself thinking about work, even when I want to get away from it for a while"), and "work enjoyment" (9 items including "my job is more like fun than work").

[2] "Work engagement" is defined as a "positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption. Rather than a momentary and specific state, such as an emotion, engagement refers to a more persistent affective-motivational state that is not focused on any particular object, event or behavior" (Shimazu and Eguchi 2002, and others).

[3] From an Internet survey targeting Dutch workers and having a sample size of 2,164 people.



Source: Shimazu (2013).

Figure 1. Positioning of Concepts concerning "Work Engagement"

pleasure) (i.e., a feeling of "I have to work") (Shimazu and Eguchi 2012).

The analysis conducted by Schaufeli, Taris, and Bakker (2006) used two measures to show workaholism; namely, "working excessively" and "working compulsively."[4] The results showed that "working excessively" has characteristics of both positive workaholism and negative workaholism, while "working compulsively" is the classic form of negative workaholism. In addition, while "overwork" (working on weekends, bringing work home, working overtime) showed a positive correlation with all of the measures, its strongest relationship was with "working excessively." On the other hand "well-being" (state of health, absence from work, happiness) displayed a negative association with workaholism for the most part and a positive association with work engagement.

Shimazu and Schaufeli (2009) conducted a survey of Japanese workers[5] to examine the relationships between work engagement and workaholism and psychological distress and physical complaints, job and family satisfaction, and job performance. The results showed that (i) work engagement and workaholism have a weak positive association; (ii) work engagement has a negative association with psychological distress and physical complaints but a positive association with job and family satisfaction and job performance; and (iii) workaholism has a positive correlation with psychological distress and physical complaints but a negative correlation with job and family satisfaction and job performance.

In addition, Shimazu et al. (2012) conducted a longitudinal survey of Japanese work-

[4] The measure was comprised of 9 items for "working excessively (including "I am always busy and take on many jobs at once," etc.), 8 items for "working compulsively" (including "I sometimes feel like there is something inside me pushing me to work," etc.), and 9 items for "work engagement" (including "I feel uplifted and energetic when I am at work," etc.).

[5] Analysis focused on 776 people working for construction machinery companies in western Japan. Of these people, 728 (93.8%) were men.

ers[6] that examined work engagement and workaholism and psychological distress and physical complaints, job and family satisfaction, and job performance after six months. This survey found that work engagement leads to favorable conditions, while workaholism leads to unfavorable conditions.

The results of these analyses suggest that work engagement and workaholism are similar in that they have high work activity levels but involve different attitudes to and perceptions of work. This means they have different influences on psychological distress and physical complaints and so on (Shimazu and Eguchi 2012).

In this paper, the author analyzes relationships with workaholic working hours and their influences on mental and physical health based on research studies like those presented above (Spence and Robbins 1992; Schaufeli, Taris, and Bakker 2006, and others) that primarily involve analysis of psychological trends and behaviors toward addiction to work. Data used in this analysis are individual data (regular employees only) from a survey conducted by the Japan Institute for Labour Policy and Training (2011). For this survey, the selected respondents were divided into managerial and non-managerial personnel, in order to examine problems unique to managers. Moreover, managers accounted for a large percentage of the whole, and for these and other reasons, the analysis of this paper also aggregates and analyzes management samples and non-management samples separately.[7]

II. The Three Elements of Workaholism

In previous research by Spence and Robbins (1992), Schaufeli, Taris, and Bakker (2006), and others, analysis was based on measures consisting of multiple items, including workaholism. However, because a similar analysis cannot be performed with the data used in this paper, the author elected to conduct the analysis using single question items thought to approximate the meanings of the measures of the three elements of workaholism, i.e., "work enjoyment," "driven," and "work involvement," presented by Spence and Robbins (1992). It is thought that these questions also correspond to the measures of "work engagement,"[8] "working compulsively," and "working excessively" presented by Schaufeli, Taris,

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[6] An Internet survey using people registered with a research company. The survey was conducted twice with a roughly six-month interval. The valid sample size for analysis after the second survey was 1,967 people.

[7] The survey was conducted in February 2010 using people registered with a private research company. Postal services were utilized. Respondents were follows: "manager": 4,423 (88.5%); "non-manager": 4,338 (86.8%); total: 8,761 (87.6%). However, those respondents used for analysis were 2,733 "manager" and 5,020 "non-manager" (total of 7,753) that were obtained after excluding 640 respondents who answered they were not "regular employees" at the time of the survey and 235 who stated that their current position is "executive." For details on the survey method, see Japan Institute for Labour Policy and Training (2011).

[8] "Work engagement" is presented as a complex concept comprised of "vigor" (high levels of energy and mental resilience while working) "dedication" (being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge), and "absorption"

and Bakker (2006). Their analysis focused only on the negative aspects of workaholism, as it considered the positive aspects to be "work engagement"; however, this paper analyzes workaholism by bringing together both positive and negative aspects.

For "work enjoyment," the author used a question item concerning "work/leisure balance (work-orientedness)." Here, responses were arranged in a five-point scale comprised of "I look for meaning in my work and put all my energies into it," "I put energy into my work, but I sometimes enjoy free time," "I think that work and free time are equally as important as one another," "I work to a certain extent but enjoy my free time as much as possible," and "I do not prioritize work, but rather look for meaning in my free time."[9] This question, which includes the expression "look for meaning in my work," was used because "work enjoyment" refers to liking work and feeling enthusiasm for it.

For "driven," the analysis used question items concerning "Even if I leave work, I am always thinking about it and cannot get work out of my mind." It is thought that this item approaches the meaning of "driven." Available responses were arranged in a four-point scale comprised of "Always true," "Often true," "Sometimes true," and "Almost never true."[10]

And for "work involvement," the analysis used the question item "Work just keeps coming, and I have to process so many things at once," which shows a strong connection with work. For this item as well, available responses were arranged in a four-point scale comprised of "Always true," "Often true," "Sometimes true," and "Almost never true."[11]

The analysis of this paper seeks to verify the following two main hypotheses. The first is that people who get more enjoyment from their work, feel more inner drive toward their work, or feel a stronger sense of involvement in their work tend to work longer hours. This is based on the rationale that "work enjoyment," "driven," and "work involvement" are all elements that extend working hours. And the second is that people who enjoy their work tend not to experience problems with their own health, whereas people who feel inner drive toward their work or feel a stronger sense of involvement in their work tend to experience health problems. As was shown in research by Shimazu and others (Shimazu and Schaufeli 2009; Shimazu et al. 2012), even when the level of activity applied to work is high, differences in attitudes toward and perceptions of work can generate differences in state of health.

(being fully concentrated and happily engrossed in one's work) (Shimazu and Eguchi 2012).

[9] For analysis, values were assigned to each of the options as follows: "I look for meaning in my work and put all my energies into it" = +2; "I put energy into my work, but I sometimes enjoy free time" = +1; "I think that work and free time are equally as important as one another" = 0; "I work to a certain extent but enjoy my free time as much as possible" = −1; "I do not prioritize work, but rather look for meaning in my free time" = −2.

[10] For analysis, values were assigned to each of the options as follows: "Always true" = 3; "Often true" = 2; "Sometimes true" = 1; "Almost never true" = 0.

[11] Responses were processed in the same manner as those for "driven" for analysis.

Table 1. "Work Enjoyment" and Working Hours (Average Hours)

	I do not prioritize work, but rather look for meaning in my free time		I work to a certain extent but enjoy my free time as much as possible		I think that work and free time are equally as important as one another		I put energy into my work, but I sometimes enjoy free time		I look for meaning in my work and put all my energies into it	
Non-managers										
Total monthly working hours	178.1	(194)	176.5	(680)	181.1	(2573)	190.6	(1179)	205.7	(98)
Monthly overtime hours	20.2		19.6		24.1		29.6		37.0	
Managers										
Total monthly working hours	177.5	(29)	179.0	(178)	180.8	(1412)	193.0	(914)	213.0	(88)
Monthly overtime hours	23.7		26.7		28.5		36.3		50.7	

Notes: 1. The item appearing in the questionnaire was "Please check one response that applies to you with regard to your work/leisure balance."
2. All of the results of analysis of variance are statistically significant at the 1% level.
3. Numbers in parentheses are the number of observations.

III. Workaholism and Working Hours

To begin, this section confirms the relationship between working hours and the three elements of workaholism. Tables 1 to 3 show averages of total monthly working hours and overtime hours for each category of the three elements of workaholism. For "work enjoyment" (Table 1), it is apparent that, for both non-managers and managers, those who put greater priority on work tend to work longer hours, and that managers tend to work longer hours than non-managers.[12] For "work involvement" (Table 2), a trend is apparent whereby those feeling a stronger sense of involvement in their work tend to work longer hours. The same is true for "driven" (Table 3), which shows a trend whereby those who feel stronger drive toward their work tend to work longer hours. From these results, it was verified that the elements of workaholism are also elements behind longer working hours.

Table 4 shows correlation coefficients between total monthly working hours and the three elements of workaholism. For both non-managers and managers, total monthly working hours show a weak positive association with each of the three elements of workaholism.

[12] Working hours were longer for managers than non-managers because female non-managers work shorter hours. There was almost no difference between the working hours of male non-managers and managers. Looking at total monthly working hours, for non-managers, females worked 170.1 hours (n = 1,152) while males worked 187.5 hours (n = 3,581), and for managers, females worked 183.8 hours (n = 57) while males worked 186.0 (n = 2,566).

Table 2. "Work Involvement" and Working Hours (Average Hours)

	Almost never true		Sometimes true		Often true		Always true	
Non-managers								
Total monthly working hours	172.8	(529)	175.8	(1397)	184.7	(1891)	198.6	(862)
Monthly overtime hours	12.4		17.7		27.4		39.1	
Managers								
Total monthly working hours	166.1	(163)	173.3	(728)	188.6	(1202)	204.7	(503)
Monthly overtime hours	13.4		21.2		33.5		49.3	

Notes: 1. The item appearing in the questionnaire was "I must simultaneously handle many duties that come up one after another."
2. All of the results of analysis of variance are statistically significant at the 1% level.
3. Numbers in parentheses are the number of observations.

Table 3. "Driven" and Working Hours (Average Hours)

	Almost never true		Sometimes true		Often true		Always true	
Non-managers								
Total monthly working hours	174.2	(1302)	179.9	(1941)	191.9	(1020)	206.6	(412)
Monthly overtime hours	16.8		22.7		32.4		43.2	
Managers								
Total monthly working hours	174.6	(536)	182.0	(1161)	194.6	(644)	207.2	(251)
Monthly overtime hours	22.2		28.8		37.7		51.8	

Notes: 1. The item appearing in the questionnaire was"I am always thinking about work and cannot get it out of my mind."
2. All of the results of analysis of variance are statistically significant at the 1% level.
3. Numbers in parentheses are the number of observations.

Table 4. Correlation between Total Monthly Working Hours and the Elements of Workaholism

	Total monthly working hours	Work enjoyment	Driven
Non-managers			
Work enjoyment	0.127 (4724)		
Driven	0.226 (4675)	0.118 (4937)	
Work involvement	0.199 (4679)	0.041 (4941)	0.433 (4949)
Managers			
Work enjoyment	0.176 (2621)		
Driven	0.243 (2592)	0.145 (2688)	
Work involvement	0.295 (2596)	0.067 (2692)	0.444 (2689)

Note: All correlation coefficients are statistically significant at the 1% level.

In other words, although people who get more enjoyment from their work, feel more inner drive toward their work, or feel a stronger sense of involvement in their work tend to work longer hours, the correlation is not very high. In addition, “driven” and “work involvement” have a slightly higher correlation with working hours than “work enjoyment.”

Looking at the elements of workaholism, although the correlation coefficients between “work enjoyment” and “driven” and between “work enjoyment” and “work involvement are statistically significant results, their coefficient values are less than 0.2. The correlation between “driven” and “work involvement” is relatively high with coefficient values of more than 0.4 for both non-managers and managers. In other words, the association between those aspects of workaholism considered positive (work enjoyment) and those considered negative (work involvement and driven) is low. This matches with the results and trends reported by Schaufeli, Taris, and Bakker (2006) indicating that work engagement and workaholism are two different things.

IV. Workaholism and Health

This section looks at the relationship between the elements of workaholism and mental and physical health. Various research studies have clearly shown that longer working hours have a detrimental effect on mental and physical health (one example is Japan Institute for Labour Policy and Training [2005]).

The mental and physical health variables used in the analysis are the combined scores[13] of 10 items[14] concerning the following question: “This question concerns your physical and mental condition during the past one week. To what degree have you experienced the following?” The items include “experienced loss of appetite” and “felt depressed.” Available answers were arranged in four-point scale comprised of “Almost every day,” “Frequently,” “Occasionally,” and “Not at all.”

Table 5 shows the correlation between the elements of workaholism and mental and physical health (total score). For both non-managers and managers, there was almost no relationship with “work enjoyment.” However, when “driven” and “work involvement” are compared, the value for driven is higher in both cases.

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[13] Total scores were calculated as follows: “Almost every day” = 3; “Frequently” = 2; “Occasionally” = 1; and “Not at all” = 0. Accordingly, a higher score indicates a poorer state of health and, conversely, a lower score indicates a better state of health. The minimum possible score was 0 and the maximum possible score was 30. The average for non-managers was 6.51 and that for managers was 5.47.

[14] The 10 items were “I felt annoyed by ordinary occurrences,” “I felt a loss of appetite,” “I didn’t have the energy to do anything,” “I found it difficult to concentrate on things,” “I didn’t feel like talking to people as much as usual,” “I felt glum even when encouraged by family or friends,” “I felt depressed,” “I felt lonesome,” “I felt sad,” and “I felt frightened for some reason.” The reliability coefficient (Cronbach’s coefficient alpha) for these items was 0.907. Items employed in CES-D (Center for Epidemiologic Studies Depression Scale), which is an index for measuring psychological depression, served as a reference here.

Table 5. Correlation between Mental and Physical Health and the Elements of Workaholism

	Work enjoyment	Driven	Work involvement
Non-managers	-0.069** (4968)	0.443** (4915)	0.242** (4919)
Managers	-0.012 (2704)	0.428** (2673)	0.263** (2677)

Note: ** indicates a statistical significance at the 1% level.

Table 6 shows the results of a multivariate analysis (OLS) using mental and physical health as an explained variable, which was conducted to verify the effects the three elements of workaholism have on health. Explanatory variables consisted of variables for the three factors of workaholism, and gender, age, academic background, annual salary, position, occupation, business category, company size, and total monthly working hours as control variables.

In the case of non-managers, all of the three elements of workaholism have a statistically significant impact on mental/physical health (deterioration). However, while "work enjoyment" has a negative association, "driven" and "work involvement" have a positive association. In other words, the analysis found that, for non-managers, the more a person feels he gets a sense of meaning from work, the better his mental/physical health tends to be; however, the stronger he feels driven to work or the more involved he is in work, the worse his mental/physical health becomes. The influence of "driven" is particularly large. It is thus apparent that pressure to do work (driven) has a larger influence on mental/physical health than the amount of work (work involvement).

In the case of managers, like non-managers, all of the three elements of workaholism have a statistically significant impact on mental/physical health (deterioration). "Work enjoyment" has a negative association, while "driven" and "work involvement" have a positive association. A tendency for "driven" to have the largest influence is apparent.

From these results, it is understood that, of the three elements of workaholism, the state of mental/physical health is better when "work enjoyment" is present, but is worse when there is strong "driven" or high "work involvement." In particular, "driven" has a large influence when it comes to deteriorating mental/physical health. These tendencies match with the findings of Schaufeli, Taris, and Bakker (2006).

V. Workaholic Types and Health

The above discussion provided an analysis of the three elements of workaholism and their relationships with health. However, when considering individual workers, it should be remembered that some people may have a strong tendency in one of the three elements, while others may have combinations of all three elements. The following presents an analysis that divides workaholics into types that are matched to the three elements.

Table 6. The Impact of the Elements of Workaholism on Mental and Physical Health

The explained variables are synthetic variables for 10 items concerning physical and mental condition during one week. OLS was the method used.	Non-managers		Managers	
	Standardized coefficient	t value	Standardized coefficient	t value
Gender (male = 1, female = 0)	-0.062	-3.602 **	-0.031	-1.656 *
Age (years)	0.008	0.484	0.048	2.448 **
Academic background				
[Junior high school/high school]				
Junor college/specialized training college	-0.008	-0.500	-0.006	-0.290
University	-0.007	-0.377	-0.016	-0.675
Graduate school	0.015	0.935	-0.012	-0.551
Annual salary (logarithm)	-0.088	-4.622 **	-0.126	-5.261 **
Position [Rank-and-file employee]				
Section chief/senior staff member	-0.031	-2.013 **		
Assistant division chief	-0.029	-1.875 *		
Position [Division chief]				
Division manager			-0.010	-0.534
Division director			-0.008	-0.441 *
Occupation [General office work]				
General affairs, personnel, accounting, etc.	-0.040	-2.285 **	0.041	1.101
Sales	-0.055	-2.514 **	0.047	1.049
Customer services	-0.026	-1.579	0.008	0.343
Administrative specialist	-0.006	-0.402	0.055	2.189 **
Technical specialist	-0.027	-1.185	0.028	0.676
Medical or educational specialist	-0.015	-0.739	0.047	1.992 **
Worksite management/supervision	-0.023	-1.242	0.048	1.401
Manufacturing/construction work	-0.027	-1.276	0.027	1.158
Transport/security	-0.018	-1.035	0.002	0.077
Other	-0.028	-1.716 *	0.011	0.426
Business category [Manufacturing]				
Construction	-0.016	-1.068	-0.001	-0.041
Communications/transport	0.002	0.128	0.015	0.759
Distribution/eating and drinking	0.017	1.009	-0.011	-0.501
Finance/real estate	0.032	2.044 **	0.031	1.505
Academics/education/medicine	0.023	1.165	0.022	1.022
Other services	0.009	0.535	0.055	2.696 **
Company size [99 employees or less]				
999 employees or less	0.020	1.201	0.056	2.331 **
1,000 employees or more	0.004	0.189	0.057	2.024 **
Total monthly working hours	0.026	1.777 *	0.011	0.574
Work enjoyment (+2 to −2)	-0.103	-7.544 **	-0.085	-4.570 **
Driven (+2 to −2)	0.435	28.821 **	0.405	19.754 **
Work involvement (+2 to −2)	0.073	4.775 **	0.085	4.040 **
Constant		7.415 **		4.756 **
Sample size		4339		2455
F value		46.120 **		23.008 **
Adjusted coefficient of determination		0.238		0.212

Notes: 1. If a coefficient value is "+," a higher explanatory variable means a poorer health state. Conversely, if the value is "–," a higher explanatory variable means a better health state.
2. ** p<0.05; * p<0.10.
3. Items in brackets indicate the reference group for each dummy variable.

Table 7. The Workaholic Types

	Work enjoyment	
	+ group	– group
Driven		
Non-managers		
+ group	enjoyment + / driven + = 439	enjoyment − / driven + = 781
− group	enjoyment + / driven − = 421	enjoyment − / driven − = 1246
Managers		
+ group	enjoyment + / driven + = 370	enjoyment − / driven + = 430
− group	enjoyment + / driven − = 351	enjoyment − / driven − = 614

Table 8. A Comparison of the Workaholic Types (Average Values)

	Workaholic type				
	enjoyment + driven +	enjoyment + driven –	enjoyment – driven +	enjoyment – driven –	Total
Non-managers					
Total monthly working hours	203.5	187.0	194.3	181.2	189.0
Mental/physical health state	9.4	5.6	10.2	5.6	7.4
Managers					
Total monthly working hours	209.0	194.4	193.3	183.6	193.4
Mental/physical health state	8.1	4.9	8.6	4.4	6.3

Note: All of the results of analysis of variance are statistically significant at the 1% level.

To classify the types, the positive aspect of workaholism (work enjoyment) and negative aspect (driven) are combined only when "work involvement" is high.[15,16] Table 7 shows the sample sizes for each type. Each of the types has high "work involvement"; however, *enjoyment +/driven +* is high in both "work enjoyment" and "driven" while *enjoyment +/driven –* is high in "work enjoyment" but low in "driven." On the other hand, *enjoyment –/driven +* is low in "work enjoyment" but high in "driven," while *enjoyment –/driven –* is low in both "work enjoyment" and "driven."

Table 8 provides a comparison of averages of total monthly working hours and total points for mental and physical health for each workaholic type. Generally speaking, the trends for both non-managers and managers match. Total monthly working hours were

15 When values are 3 (always true) or 2 (often true).

16 The positive (+) group of "work enjoyment" is comprised of 2 ("I look for meaning in my work and put all my energies into it") and 1 ("I put energy into my work, but I sometimes enjoy free time"), while the negative (−) group is comprised of the others (0 ["I think that work and free time are equally as important as one another"], −1 ["I work to a certain extent but enjoy my free time as much as possible"] and −2 ["I do not prioritize work, but rather look for meaning in my free time"]). The positive (+) group of "driven" includes 3 ("always true") or 2 ("often true"), while the negative (−) group includes the others (1 [sometimes true] and 0 [almost never true]).

longest for the type with high “work enjoyment” and “driven” scores (*enjoyment +/driven* +), and shortest for the type with low scores in the same elements (*enjoyment –/driven –*). Even among those types with high “work involvement” scores, those with higher “work enjoyment” and “driven” scores had longer working hours. Looking at mental and physical health, the type with a low “work enjoyment” score but high “driven” score (*enjoyment –/driven* +) had the worst health state, while those types with a low “driven” score (*enjoyment +/driven –* and *enjoyment –/driven –*) had better health states. The aforementioned analysis using the three elements of workaholism also showed that “driven” had the largest influence on tendencies toward poor health state.

In this way, a comparison of average scores concerning mental/physical health shows that the types with high “driven” (*enjoyment +/driven* + and *enjoyment –/driven* +) have high health scores, meaning that the state of health is not good. A multivariate analysis that, like the analysis of the three elements of workaholism (Table 6), used mental/physical health state as an explained variable confirms the impact that each of the workaholic types have on state of health (Table 9).

In the case of non-managers, as opposed to the type with low “work enjoyment” and “driven” scores (*enjoyment –/driven –*), the types with high “driven” scores (*enjoyment +/driven* + and *enjoyment –/driven* +) had a significant statistical impact with a positive association with state of health. In other words, these types displayed a tendency toward a poorer state of health. When the types with high “driven” scores (*enjoyment +/driven* + and *enjoyment –/driven* +) were compared, the type with the low “work enjoyment” score (*enjoyment –/driven* +) had a higher coefficient value, indicating an even stronger tendency to worsen state of health. An analysis of managers shows similar results as those of non-managers. Here, it is possible to conclude that, even though work pressure tends to worsen mental/physical health, a positive attitude toward work generates a relatively good state of health.

The above analysis showed a tendency for poorer state of health for types with high “driven” scores (*enjoyment +/driven* + and *enjoyment –/driven* +). From this, the author next conducted a comparison with living habits for each workaholic type. When working hours become longer, “not only do the hours of labor become longer, but time runs short for sleep and rest as well as for domestic life and leisure. This interferes with recovery from mental and physical fatigue” (Iwasaki 2008). Kubota et al. (2011) conducted a survey of Japanese nurses to identify the relationship between workaholism and sleep disorders.[17] Although the results did not show a link between workaholism and insomnia, they did show that those people with strong workaholic tendencies tend to suffer from sleep-related issues, such as drowsiness on the job, difficulty waking up, and feeling of fatigue upon rising from bed.

[17] The survey targeted nurses working at two university hospitals. The number of respondents used in the analysis was 312, all of whom were female.

Table 9. The Impact of the Workaholic Types on Mental and Physical Health (OLS)

The explained variables are synthetic variables for 10 items concerning physical and mental condition during one week. OLS was the method used.	Non-managers		Managers	
	Standardized coefficient	t value	Standardized coefficient	t value
Gender (male = 1, female = 0)	-0.078	-3.371 **	-0.041	-1.723 *
Age (years)	0.012	0.550	0.051	2.089 **
Academic background [Junior high school/high school]				
Junor college/specialized training college	-0.011	-0.501	0.005	0.189
University	-0.022	-0.910	-0.012	-0.374
Graduate school	0.022	1.042	-0.016	-0.554
Annual salary (logarithm)	-0.103	-3.912 **	-0.146	-4.897 **
Position [Rank-and-file employee]				
Section chief/senior staff member	-0.035	-1.674 *		
Assistant division chief	-0.029	-1.363		
Position [Division chief]				
Division manager			-0.022	-0.871
Division director			-0.005	-0.220
Occupation [General office work]				
General affairs, personnel, accounting, etc.	-0.078	-3.289 **	0.081	1.777 *
Sales	-0.075	-2.538 **	0.092	1.630
Customer services	-0.021	-0.967	0.020	0.675
Administrative specialist	-0.003	-0.126	0.055	1.757 *
Technical specialist	-0.047	-1.529	0.072	1.386
Medical or educational specialist	-0.051	-1.918 *	0.047	1.565
Worksite management/supervision	-0.022	-0.881	0.075	1.736 *
Manufacturing/construction work	-0.063	-2.302 **	0.047	1.544
Transport/security	-0.011	-0.515	0.002	0.080
Other	-0.051	-2.307 **	0.025	0.749
Business category [Manufacturing]				
Construction	-0.052	-2.552 **	-0.001	-0.049
Communications/transport	-0.022	-1.043	0.025	0.985
Distribution/eating and drinking	-0.012	-0.522	-0.019	-0.684
Finance/real estate	0.023	1.081	0.063	2.365 **
Academics/education/medicine	0.020	0.748	0.016	0.572
Other services	-0.007	-0.342	0.075	2.849 **
Company size [99 employees or less]				
999 employees or less	0.022	0.972	0.097	3.200 **
1,000 employees or more	0.045	1.736 *	0.094	2.661 **
Total monthly working hours	0.056	2.905 **	0.003	0.113
Workaholic type [A−B−]				
enjoyment + / driven +	0.247	12.531 **	0.288	10.747 **
enjoyment + / driven −	0.001	0.031	0.035	1.354
enjoyment − / driven +	0.352	17.689 **	0.350	13.208 **
Constant		7.304 **		5.130 **
Sample size		2578		1613
F value		19.080 **		10.663 **
Adjusted coefficient of determination		0.174		0.152

Notes: 1. If a coefficient value is "+," a higher explanatory variable means a poorer health state. Conversely, if the value is "−," a higher explanatory variable means a better health state.

2. ** p<0.01; * p<0.05.

3. Items in brackets indicate the reference group for each dummy variable.

Table 10. Responses to the Item "I Sleep an Adequate Number of Hours" by Workaholic Type

	I disagree	I somewhat disagree	I somewhat agree	I agree	Total (N)
Non-managers					
enjoyment + / driven +	27.1%	44.8%	19.9%	8.3%	100.0% (181)
enjoyment + / driven −	12.1%	41.1%	36.4%	10.3%	100.0% (107)
enjoyment − / driven +	27.6%	45.2%	21.8%	5.4%	100.0% (261)
enjoyment − / driven−	15.2%	39.2%	33.2%	12.4%	100.0% (250)
Total	21.5%	42.7%	26.9%	8.9%	100.0% (799)
Managers					
enjoyment + / driven+	24.1%	44.3%	22.4%	9.2%	100.0% (174)
enjoyment + / driven−	21.4%	31.1%	32.0%	15.5%	100.0% (103)
enjoyment − / driven +	28.8%	42.4%	20.0%	8.8%	100.0% (125)
enjoyment − / driven −	14.1%	38.3%	33.6%	14.1%	100.0% (128)
Total	22.3%	39.8%	26.4%	11.5%	100.0% (530)

Table 11. Responses to the Item "I Spend Enough Time with My Family and Friends" by Workaholic Type

	I disagree	I somewhat disagree	I somewhat agree	I agree	Total (N)
Non-managers					
enjoyment + / driven +	30.6%	47.2%	18.9%	3.3%	100.0% (180)
enjoyment + / driven −	18.7%	43.0%	31.8%	6.5%	100.0% (107)
enjoyment − / driven +	26.1%	34.9%	29.5%	9.6%	100.0% (261)
enjoyment − / driven −	10.0%	39.4%	37.3%	13.3%	100.0% (249)
Total	21.1%	40.2%	29.9%	8.9%	100.0% (797)
Managers					
enjoyment + / driven +	31.0%	46.6%	20.1%	2.3%	100.0% (174)
enjoyment + / driven −	22.3%	47.6%	22.3%	7.8%	100.0% (103)
enjoyment − / driven +	20.8%	46.4%	26.4%	6.4%	100.0% (125)
enjoyment − / driven −	14.1%	40.6%	32.8%	12.5%	100.0% (128)
Total	22.8%	45.3%	25.1%	6.8%	100.0% (530)

Table 10 and Table 11 compare living habits ("I sleep an adequate number of hours" and "I spend enough time with my family and friends") by workaholic type, with data limited to people whose total monthly working hours were at least 201 hours. As an overall trend, the types with a high "driven" score (*enjoyment +/driven +* and *enjoyment –/driven +*) had high percentages of the response "I disagree," signifying that the relevant living habit is not being fulfilled. Thus, differences appear between types with high "driven"

scores (*enjoyment +/driven* + and *enjoyment –/driven* +) and the other types, even when delimited to working hours above a certain level. Although it may be difficult to change the way people approach their work, it may also be possible that revising lifestyle habits will lead to a revision of the way people work.

VI. Summary and Issues

In this paper, workaholism has been examined in relation to the characteristics of long-hour workers and analyzed with reference to previous research. "Workaholism" is sometimes equated with "addiction to work," but in terms of its characteristics other than working long hours, addictiveness to work has mainly been analyzed in the field of psychology. Definitions of workaholism often produce negative connotations, but positive aspects are also sometimes highlighted. In this paper, the author's analysis of workaholism has been based on the three elements of workaholism ("work enjoyment," "driven" and "work involvement") posited by Spence and Robbins (1992). The main hypotheses presented by this paper are that (i) people who get more enjoyment from their work, feel more inner drive toward their work, or feel a stronger sense of involvement in their work tend to work longer hours, and (ii) it would seem that people who get more enjoyment from their work are less likely to feel problems with their own health, whereas those who feel more inner drive toward their work or feel a stronger sense of involvement in their work tend to be more aware of health problems.

Firstly, the relationship between the three elements and working hours was examined, since workaholics are regarded as people who work long hours. Data on average working hours (Tables 1–3) reveal a tendency for people who get more enjoyment from their work, feel more inner drive toward their work, or feel a stronger sense of involvement in their work to work longer hours. Although this supports the first hypothesis, the correlation coefficients (Table 4) were not so high. More specifically, the correlation with working hours was somewhat higher for "driven" and "work involvement" than for "work enjoyment."

Next, correlations among the three elements of workaholism were analyzed (Table 4). The results revealed a relatively strong connection between "driven" and "work involvement" (i), while "driven" and "work involvement" were less strongly related to "work enjoyment" (ii). Of these, the correlation in (i) may be equated with negative aspects of workaholics ("working compulsively" and "working excessively"), and those in (ii) with a positive aspect ("work engagement") (Schaufeli, Taris, and Bakker 2006).

The author then analyzed the impact of the three elements of workaholism on mental and physical health, using synthetic variables created from answers to ten questions on physical and mental condition over a one-week period. In terms of the correlation with each element, there was hardly any relationship with "work enjoyment," while the strongest relationship was with "driven" (Table 5). Multivariate analysis (OLS) was conducted to investigate the impact of the three workaholic elements, as well as gender, age, occupation and

other control variables, taking the state of mental and physical health as the explained variable. As a result, "work enjoyment" was shown to have a positive impact on mental and physical health, but the impact of "driven" and "work involvement" was negative. The negative impact of "driven" was particularly strong (Table 6). These findings support the second hypothesis. Besides the above, the author also analyzed different types by combining the three elements of workaholism, revealing a tendency toward poorer health in the type with strong "driven" (Table 9). "Driven," i.e. a feeling of pressure from work, was therefore shown to have a consistent impact on the worker's mental and physical health.

As described above, this paper has analyzed elements related to the work addictiveness of workaholics. Although workaholics are perceived to be people who voluntarily work long hours, this voluntary characteristic is thought to involve some healthy and some not so healthy aspects, as mentioned at the beginning of this paper. The analysis presented in this paper has revealed a trend for people who find meaning in their work to be healthy, with a contrasting tendency toward poor mental and physical health among those who work (or perhaps are made to work) under pressure. That does not mean, however, that people who find meaning in their work do not also face health hazards. As working hours increase, the risk of damage to health increases commensurately. It therefore goes without saying that each individual should lead a vocational lifestyle that takes health into account. It should also be possible to revise the way in which people work, not only in the workplace but also by changing daily lifestyle habits.

The Ministry of Health, Labour and Welfare has set up a Project Team as a measure to combat suicide, depression and other problems. One of the five central themes of its report, published in May 2010, was "Enhancing mental health measures in the workplace and support for workplace reinstatement—Promoting the creation of workplaces where each individual is valued."[18] Again, in September 2010 the "Study Group on Mental Health Measures in the Workplace" published a report on its findings, including a proposal for a "new framework leading to better workplace environments with consideration for privacy."[19] From these, too, an increased concern for workers' health is evident. Nevertheless, the circumstances of people with "addictiveness" to work are varied, and how to respond to these individually remains a difficult problem. Although the intervention of medical personnel and other specialists is also important, the "risk levels" of people with "addictiveness" to work will need to be ascertained, for example through daily communication in the workplace. In this respect, managers in the workplace will have an important role to play.

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[18] Ministry of Health, Labour and Welfare, "Jisatsu, Utsubyoto Taisaku Purojekuto Chimu Torimatome ni Tsuite [On the summary report by the Project Team for Measures against Suicide and Depression, etc.]," http://www.mhlw.go.jp/bunya/shougaihoken/jisatsu/torimatome.html (accessed September 28, 2010).

[19] Ministry of Health, Labour and Welfare, "'Shokuba ni okeru Mentaru Herusu Taisaku Kentokai' no Hokokusho Torimatome [Summary report of the Study Group on Mental Health Measures in the Workplace]," http://www.mhlw.go.jp/stf/houdou/2r9852000000q72m.html (accessed September 28, 2010).

One issue concerning this paper is that its analysis was based on single question items, rather than a measure of workaholism elements consisting of more than one item. Another issue is the need for analysis reflecting differences in the ways people work, depending on individual attributes such as gender. Finally, according to Shimazu and Eguchi (2012), job resources (such as support from superiors and powers of discretion) and personal resources (such as a sense of self-efficacy and optimistic outlook) have been clarified in empirical research as determinants of work engagement. By conducting analysis that includes this kind of variable, it should be possible to clarify the mechanisms in more detail.

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Employers' Response to Workers Appearing to Suffer from Mental Illness: A Recent Supreme Court Judgment, the Law and the Administration

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In 2012, the Supreme Court of Japan overturned a case of forced resignation on grounds of unauthorized absence by a worker who was deemed to have taken extended leave from work owing to mental illness. In its judgment, the Supreme Court held that the response to workers in this situation should be to consider dispositions such as leave of absence, based on the result of examination by a psychiatrist, and then to monitor subsequent progress; taking disciplinary action without having attempted this was not appropriate as a response by an employer.

There are various ways in which such workers can be made aware of their illness, the employer can prevent their condition from worsening, and the skills of managers, supervisors, and others can be improved. These include (i) medical examination provided by the employer, and the use of Health Committees pursuant to the Industrial Safety and Health Act, and (ii) promoting education, training and information provision to managers, supervisors and workers by employers, as indicated in the 12th Industrial Accident Prevention Plan. Besides these, the recent Amendment of the Act on Employment Promotion, etc. of Persons with Disabilities provides that workers with mental illness should be included in the basis for calculating the legal minimum employment rate, and obliges employers to provide reasonable accommodation for these workers. This could have a positive impact on solving the problem of poor knowledge by management and workers on the response to workers who appear to suffer from mental illness.

I. Validity of Dismissal, Disciplinary Action and Other Measures against Workers Suffering from Mental Illness

1. Characteristics of Workers Suffering from Mental Illness, Their Dismissal, Disciplinary Action, etc.

Dismissal, automatic retirement or dismissal on completion of a period of leave, reinstatement, and other dispositions toward workers suffering from non-work related injury or illness are themes that have long been debated and copiously researched in the field of labor law.[1] Of such non-work related injury or illness, the validity of dismissal and other disci-

[1] Itaru Nemoto, "Kaiko Jiyu no Ruikeika to Kaikoken Ranyo no Handan Kijun [Typology of grounds for dismissal and standards for judging the legal principle on abusive dismissal]," 99 Journal of Labour Law 52 (2002); Makoto Iwade, "Kenko Hairyo Gimu wo Fumaeta Rodosha no Shogu, Kyushoku, Kaiko [Treatment, suspensions and dismissals of workers based on employers' duty to care for employee safety and health]," 109 Journal of Labour Law 62 (2007); Makoto Iwade, *Shain no Kenko Kanri to Shiyosha Sekinin* [Employees' health management and employers' responsibility] (Rodo Chosakai, 2004); Ikuko Mizushima, "Shippei Rodosha no Shogu [Treatment of sick workers],"

plinary action against workers appearing to suffer from mental illness has started to gather interest in recent years. If the response to these workers is mistaken, it could cause their symptoms to deteriorate, leading to self-harm or other problems, and a careful response is therefore required.

Workers suffering from mental illness are characterized, firstly, in that their illness can cause them to behave abnormally; secondly, in that there may be no self-awareness of illness and no attempt made to have it examined; and thirdly, in that, out of fear of prejudicial treatment, they sometimes conceal the fact that they have the illness or are being treated for it. Can workers in this situation be dismissed or punished on grounds of abnormal behavior? Should others in the workplace be allowed to gather information on their state of health without their consent, urge their families to seek examination and treatment, or give sick leave when information on the worker's health is not even known? And would it be deemed illegal for the employer to instigate disciplinary action, dismissal, or other measures based on formal evaluation without considering the illness, on the misunderstanding that the worker was not suffering from an illness?

2. Comparison with Other Non-Work Related Injury or Illness

The prevailing view is that, for workers suffering from non-work related illness in general, dismissal on grounds of the non-provision of labor due to an illness other than mental illness is valid if a serious condition would continue into the future and the provision of labor would be impossible.[2] Reinstatement is permitted if the condition has been cured

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in *Koza 21-seiki no Rodoho 7: Kenko, Anzen to Katei Seikatsu* [Coursework on 21st century labor law (vol. 7): Health, safety and family life], ed. Japan Labor Law Association (Yuhikaku, 2000), 131; Ikuko Mizushima, "Howaitokara Rodosha to Shiyosha no Kenko Hairyo Gimu [Health care of white-collar employees and employers' responsibilities]," 492 The Japanese Journal of Labour Studies 32 (2001); Mikio Yoshida, "Shippei Rodosha no Shogu [Treatment of sick workers]," in *Rodoho no Soten (dai 3 pan)* [Issues of labor law (3rd Edition)]," ed. Kunishige Sumida, Katsutoshi Kezuka, and Mutsuko Asakura (Yuhikaku, 2004), 243; Hajime Wada, "Rodosha no Byoki (Shishobyo) to Kaiko nado [Workers' sickness (non-work related) and dismissal, etc]," 252 Hogaku Kyoshitsu 147; Toshihiro Fujiwara, "Doitsu ni okeru Shippei Kaiko no Hori [The legal principle of sickness dismissal in Germany]," in *Rodo Hogoho no Saisei* [Revival of labor protection law], Shunichi Sato et al., (Shinzansha, 2005), 439.

[2] Koichi Kamata, "Shishobyo Kyushokusha no Fukushoku to Futan Keigen Sochi [Reinstatement and stress mitigation measures for workers taking leave for non-work related injury or illness]," in *Keiei to Rodo Homu no Riron to Jitsumu* [Theory and practice of management and labor law], ed. Koichiro Yamaguchi et al. (Chuo Keizaisha, 2009), 97; Tomoyuki Kato, "Mentaru Fuchosha wo Meguru Fukushoku Hairyo Gimu no Ichikosatsu [A study on the duty to consider reinstatement for workers with mental health illness]," in *Shakaiho no Saikochiku* [Restructuring of social law], ed. Fumito Komiya et al. (Junposha, 2011), 162; Kazuo Sugeno, *Rodoho (dai 10 pan)* [Labor law (10th edition)] (Kobundo, 2012), 557; Kiyotaka Hatai, "Shogai, Byoki to Kaiko [Disability, sickness and dismissal]" in *Kaiko to Taishoku no Homu* [Law issues on dismissal and retirement], ed. Susumu Noda et al. (Shoji Homu, 2012), 199; Noboru Yamashita, "Rodosha no Tekikakusei Ketsujo to Kiritsu Ihan Koi wo Riyu to suru Kaiko [Dismissal on grounds of workers' ineptitude and violation of rules]," in *Kaiko to Taishoku no Homu* [Law issues on dismissal and retirement], ed. Susumu Noda et al.

by the end of the leave period, but many theories point out that (i) there have been court precedents to the effect that, in cases of illnesses other than mental illness, workers seeking reinstatement are responsible for providing evidence of the cure,[3] and that (ii) court precedents have changed their stance on the "cure"; namely, rather than acknowledging the cure to be the point at which the worker has returned to a state of health enabling him or her to perform his or her previous job to the normal degree,[4] they hold that, for those who are not in any condition to return to their previous duties but can undertake lighter duties and seek reinstatement in such duties, employers have an obligation to consider whether there are any duties to which they can actually be assigned.[5, 6]

Viewing the massed court precedents, the same could be said with respect to workers suffering from mental illness.

In other words, even if a worker is suffering from mental illness, dismissal is deemed valid if a serious condition would continue into the future and the provision of labor would be impossible.[7] On reinstatement at the end of the leave period, similarly, automatic retirement or dismissal is also deemed valid in the case of mental illness if a complete cure (re-

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(Shoji Homu, 2012), 180; Nemoto, *supra* note 1, at 55; Yoshida, *supra* note 1, at 242; Iwade, "Kenko Hairyo Gimu," *supra* note 1, at 62; Tetsunari Doko, Fumito Komiya, and Yoichi Shimada, *Risutora Jidai: Koyo wo Meguru Horitsu Mondai* [Legal problems surrounding employment in the restructuring era] (Junposha, 1998), 206, and others.

3 *Schenker-Seino Case* (Tokyo Dist. Ct., Mar. 18, 2010), 1011 Rodo Hanrei 73, and in support, Yukiko Ishizaki, Case Comment, 1433 Jurist 137. Ryuichi Yamakawa, Hokusan Kiko Case Comment, 1183 Jurist 183, and Iwade, "Kenko Hairyo Gimu," *supra* note 1, at 66, also deem the worker to be responsible. Conversely, as an opinion that the employer is responsible for proving the impossibility of reinstatement, Fumito Komiya, *Koyo Shuryo no Hori* [Legal principle on the termination of employment] (Shinzansha, 2010), 181, and Doko, Komiya and Shimada, *supra* note 2, at 215.

4 *Hirasen Lace Case* (Urawa Dist. Ct., Dec. 16, 1965), 16 Rominshu 1113.

5 *JR Tokai Case* (Osaka Dist. Ct., Oct. 4, 1999), 771 Rodo Hanrei 25.

6 Sugeno, *supra* note 2, at 527; Hatai, *supra* note 2, at 206; Kato, *supra* note 2, at 163. Ishizaki, *supra* note 3, at 137. As an example asserting that it is not clear in the first place what level of labor service performance is taken as the premise, etc., Kamata, *supra* note 2, 97ff. An example suggesting that this change was influenced by the Katayamagumi Case Supreme Court Judgment (Sugeno, *supra* note 2, at 527, and Iwade, "Kenko Hairyo Gimu," *supra* note 1, at 64). For more detail, see Obata Fumiko, *Saibanrei ga Shimesu Rodo Mondai no Kaiketsu* [Resolution of labor problems indicated by court precedents] (Nihon Romu Kenkyukai, 2012), 63.

7 *Kadoma and Moriguchi City Dismissal Revocation Claim Case* (Osaka Dist. Ct., Mar. 16, 1987), 497 Rodo Hanrei 121, *Seibu Byoin Case* (Tokyo Dist. Ct., Apr. 24, 1975), 225 Rodo Hanrei 20. As a precedent case concerning dismissal after leave and reinstatement, the *Tokyo Godo Jidosha Case* (Tokyo Dist. Ct., Feb. 7, 1997), 1665 Rodo Keizai Hanrei Sokuho 16. In this case, dismissal on grounds that the worker's behavior (such as quitting medical treatment after reinstatement, claiming that accidents were wholly due to the other party's negligence, ignoring warnings from a superior and treating the superior like a "strange animal") was deemed valid as it corresponded to "when it is deemed… that there is an impediment… in the mental state." As two precedent cases in which dismissal was deemed abusive because a recovery was possible, the *J Gakuen Case* (Tokyo Dist. Ct., Mar. 24, 2010), 1333 Hanrei Taimuzu 153, and the *Company K (Kando) Case* (Tokyo Dist. Ct., Feb.18, 2005), 892 Rodo Hanrei 80. See Iwade, "Kenko Hairyo Gimu," *supra* note 1, at 62, Hatai, *supra* note 2, at 217, and Fumiko Obata, "J Gakuen Jiken Kaisetsu [J gakuen case commentary]," 766 Rodo Kijun 24.

mission) has not been achieved,[8] and dismissal and retirement are deemed valid if no medical certificate has been submitted.[9] In other cases, while recognizing that, for those who are not in any condition to return to their previous duties but can undertake lighter duties and seek reinstatement in such duties, employers have an obligation to consider whether there are any duties to which they can actually be assigned, dismissal was judged valid on grounds that, even after returning to work, there was no position to which they could be assigned.[10]

The problem is that, in connection with the second and third characteristics described above, information on the worker's own state of health is not fully grasped by the worker, and is not always fully conveyed to the employer. This makes it difficult to judge whether "a serious condition would continue into the future and the provision of labor would be impossible," or to decide what would constitute the correct response after the worker's return.[11]

3. Abnormal Behavior of Workers Suffering from Mental Illness, and Disciplinary Action

As stated under the first characteristic above, there have been no cases in which illness other than mental illness has caused abnormal behavior and the validity of disciplinary action on these grounds has been contested. This could therefore be seen as a problem unique to workers suffering from mental illness.[12]

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[8] The *Company N Case* (Tokyo Dist. Ct., Feb. 25, 2011), 1028 Rodo Hanrei 56, deemed it valid, but the *Canon Software Information Systems Case* (Osaka Dist. Ct., Jan. 25, 2008), 960 Rodo Hanrei 49, deemed it invalid.

[9] *Daiken Corporation Case* (Osaka Dist. Ct., Apr. 16, 2003), 849 Rodo Hanrei 35; *Ashiya Post Office Case* (Osaka High Ct., Mar. 22, 2000), 1045 Hanrei Taimuzu 148.

[10] *Nogyo Shinkin Case* (Tokyo Dist. Ct., Mar. 26, 2004), 876 Rodo Hanrei 56. As a case where transfer after reinstatement was deemed problematic, the *Yonago Municipal Junior High School Teacher Transfer Case* (Tottori Dist. Ct., Mar. 30, 2004), 877 Rodo Hanrei 74.

[11] See Kadoma and Moriguchi City Dismissal Revocation Claim Case (note 7), *Tokyo Godo Jidosha Case* (Tokyo Dist. Ct., Feb. 7, 1997), 1665 Rodo Keizai Hanrei Sokuho 16, Canon Software Information Systems Case (note 9), and Company N Case (note 9), among others.

[12] These include a case where a worker was dismissed on grounds that the worker had, among others, disturbed the order of the workplace and besmirched the company's honor by, for example, claiming to have been subjected to indecent assault (which was deemed untrue), telling a superior to "go to hell," and threatening to commit suicide by hanging herself in the office. It was deemed that the defendant should have responded with greater caution, in that the plaintiff worker's behavior was thought to have been influenced by a deterioration of mental illness. At the same time, it was deemed that it would have been inappropriate to employ the worker and that the case did not constitute abusive dismissal, in that it was not subject to restrictions on dismissal under Article 19 of the Labor Standards Act, because there was no reason why the defendant should have borne responsibility for the occurrence of mental illness and the worker's absence could be not be recognized as being due to an illness suffered in the course of employment; moreover, it was not unreasonable to think it impossible that the relationship of trust could be repaired, in view of the plaintiff's bizarre and unacceptable behavior (*Company X Case* [Tokyo Dist. Ct., Jan. 25, 2011], 2104 Rodo Keizai Hanrei Sokuho 22).

On this subject, a judgment deeming that disciplinary action and dismissal amount to an abuse of discretionary powers has emerged and received some attention in recent years. In the case in question, the judgment was based on the fact that the worker's unauthorized absence was caused by schizophrenia, and that there was every reason to believe that the management employee, as the worker's superior, may well have harbored doubts that the unauthorized absence was based on free will.[13]

4. Assertions by Theories on Trends in Court Precedents

With the accumulation of court precedents like this, research on the validity of dismissal, retirement, dismissal or workplace reinstatement at the end of the leave period, and disciplinary action or others against workers suffering from mental illness not caused by work has been promoted in recent years. One of these asserted that "In the courts, questions will probably be raised on the extent to which corporate activity has been impeded by the negative behavior of workers with mental illness, or the extent to which companies (or employers) have devised a considerate and polite response and taken all possible steps, including coordinating with the families of workers suffering from mental illness."[14] One assertion has been that the trend in court precedents is that, if absence from work without good reason or unauthorized absence is said to result from an illness, the path of examination and treatment should first be explored before serious disciplinary action is taken.[15] Certainly, there are many judgments that mention "consideration" and "response" on the employer's side.[16]

Amid these trends, a noteworthy Supreme Court judgment on the treatment of a

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[13] *Government/Japan Meteorological Agency Case* (Osaka Dist. Ct., May 25, 2009), 991 Rodo Hanrei 101.

[14] Kibihiko Haruta, "Shokuba ni okeru Seishin Shikkansha wo Meguru Hanrei Bunseki to Rodoho-jo no Kadai [Case analysis on workers suffering from mental illness in the workplace and issues in labor law]," in *Rodo Hogoho no Saisei* [Revival of labor protection law], Shunichi Sato et al., (Shinzansha, 2005), 466.

[15] Makoto Iwade, Hewlett-Packard Japan Case Supreme Court Judgment, Comment, 1451 Jurist 118.

[16] The judgments in the Government/Japan Meteorological Agency Case (note 13), the Company K Case (note 7) and the J Gakuen Case (note 7) mentioned that such consideration had been given. The judgment in the Yonago Municipal Junior High School Teacher Transfer Case (note 10) deemed that consideration had not been given in connection with the transfer, and the judgment in the Ashiya Post Office Case (note 8) asserted that the worker could not work even when offered the exceptional measure of a 50% reduction in workload. The Toyota Tsusho Case (Nagoya Dist. Ct., Jul. 16, 1997, 960 Rodo Hanrei 145) deemed that "the general assumption that a company of a certain size will adopt concrete measures for mental health management cannot be said to have been established," and that ordinary dismissal did not constitute abusive dismissal and was valid in this case, because the employer, while rejecting the plaintiff's claim that the dismissal was abusive because no concrete measures had been taken for the management of employees' mental health, had taken a cooperative attitude toward treatment, had asked the plaintiff's family to persuade the plaintiff to receive treatment from a specialist, and had offered full explanation from the standpoint of mental health in the workplace.

worker deemed to have taken extended leave on account of mental illness was handed down in 2012.[17] This judgment will be studied in II below.

II. Validity of Disciplinary Action against a Worker Deemed to Have Taken Extended Leave Due to Mental Illness: Study of the Supreme Court Judgment in the Hewlett-Packard Japan Case

1. Locating the Problems

(1) Disciplinary Action on Grounds of Unauthorized Absence

Many companies cite unauthorized absence as grounds for disciplinary action, and workers who continue unauthorized absence are sometimes punished by disciplinary dismissal. In court precedents until now, it has been construed that the objects of disciplinary action, beyond responsibility for default on debt, are limited to "cases where replacement of the absentee or other measures such as changes in manpower allocations cannot be implemented quickly and normal production activity is hindered," because the worker has been absent without giving notice.[18] As court precedents in which absence from work was acknowledged to constitute unauthorized absence as grounds for disciplinary action, there have been cases where a worker was late for work on 24 days and 14-day absences in a 6-month period without giving notice, despite repeated warnings, and so on.[19] Whether the worker has repeated and continued acts of negligence of duties, or whether the worker reflected on warnings from the company and tried to improve, are among the important elements in judging what constitutes grounds for disciplinary action.[20] Meanwhile, when a worker could not give notice of absence for justifiable reasons, this was not treated as unauthorized absence, and was deemed not to constitute grounds for disciplinary action.[21]

(2) Formal Response, Flexible Response and the Legal Principle of Abusive Dismissal

Problems arise, for example, when a worker who takes unauthorized absence is suffering from mental illness, in particular, of all types of non-work related injury or illness, and has the first and second characteristics described in I–1 above, but has not undergone an examination in self-awareness of the illness and has not submitted a notification of absence

[17] *Hewlett-Packard Japan Case* (Sup. Ct., 2nd Petty Bench, Apr. 27, 2012), 1055 Rodo Hanrei 5. As an introduction to precedent cases, Yuko Shimada, "Seishinteki Fucho ni yoru Kekkin ni Taisuru Chokai Shobun wo Muko to shita Rei [A Case in Which Disciplinary Action against Absence Caused by a Mental Disorder Was Deemed Invalid]," 147 Minshoho Zasshi 244, among others.

[18] *Mitsubishi Heavy Industries Case* (Nagasaki Dist. Ct., Jan. 31, 1972), 23 Rominshu 1. Tamako Hasegawa, Hewlett-Packard Japan Case, Judgment of Second Instance, Comment, 1439 Jurist 129.

[19] *Tokyo Press Case* (Yokohama Dist. Ct., Feb. 25, 1977), 477 Hanrei Taimuzu 167.

[20] Hasegawa, *supra* note 18, at 129.

[21] *Japan Weather Association Case* (Tokyo Dist. Ct., Dec. 7, 1973), 191 Rodo Hanrei 52; *Goryo Limousine Case* (Hakodate Dist. Ct., Dec. 21, 1973), 193 Rodo Hanrei 47; Hasegawa, *supra* note 18, at 129.

complete with the resultant medical certificate; or when the worker stays away from work in the mistaken belief that there is some kind of obstacle in the workplace that obstructs his or her attendance.

There are three conceivable ways in which an employer could respond to this kind of worker, namely a formal response, a flexible response, and a positive response.

The formal response is one in which a formal judgment is made on the lack of notice and whether the worker's unauthorized absence constitutes grounds for disciplinary action, and disciplinary action is taken without any consideration of the mental illness or other circumstances. Employers who adopt this response assume as a matter of course that workers who fail to manage their health, are unable to fulfil their obligation to provide labor and cannot even give notice of this should be disciplined. They assume that employers should not interfere with workers' non-work related injury or illness, out of respect for health privacy. In the case of mental illness, they assume that employers should not get involved, in that the worker in question would feel wounded pride even if merely advised to undergo a health examination,[22] that this could trigger a deterioration of the symptoms and the worker could succumb to self-harm, etc. There is also the possibility that the worker could be viewed with prejudice by coworkers.

A flexible response is one in which, when acknowledging the existence of mental illness and judging whether the absence from work was "without permission," the absence is treated as a special case in which notice could not be given for unavoidable reasons, or by recognizing some other kind of contact or communication as the notice, and thus avoiding disciplinary action.

So how can the "formal response" and "flexible response" described above be viewed in their relationship to the legal principle of disciplinary authority?

Judgments on the validity of disciplinary action follow the sequence of judging (i) whether situations providing grounds for disciplinary action and the types and degrees of such action are prescribed in work rules, (ii) whether the worker's problematic behavior can be deemed to constitute grounds for disciplinary action and "objectively rational reasons" can be deemed to exist (relevance as grounds for disciplinary action), and (iii) whether, in this case, disciplinary action might not err on the side of severity in view of the nature and aspects of the behavior in question, the worker's previous working record, etc. (fairness of

[22] The judgment in the Tokyo Godo Jidosha Case (note 7) upheld the ordinary dismissal of a worker who, among other things, repeatedly sent documents claiming to have been forcibly admitted to hospital without the knowledge of his family. In the Maar Case (Tokyo Dist. Ct., March 16, 1982, 383 Rodo Hanrei 23), it was deemed that admitting a worker to a mental hospital and giving leave of absence with the consent of the worker's mother did not constitute an illegal act. On health privacy, Quarterly Labor Law (no. 209, 2005) has articles by Kishio Hobara ("Rodosha no Kenko Joho no Kanri ni tsuite [On the management of workers' health information]," 13), Ikuko Sunaoshi ("Rodosha no Kenko Joho to Puraibashi [Workers' health information and privacy]," 21) and Shigeya Nakajima ("Kenko Joho no Shori Katei ni okeru Horitsu Mondai [Legal problems in the course of processing health information]," 2).

the disciplinary action).[23]

If the employer instigated disciplinary action based on the formal response above, there are two conceivable methods, namely judging (i) whether the fairness of the disciplinary action is denied, considering the nature of the worker's behavior, even if affirming its relevance as grounds for disciplinary action, and thereby deeming the disciplinary action invalid, and (ii) whether the relevance of the behavior as grounds for disciplinary action is itself denied, because the worker is acknowledged to have a mental illness. Similarly, if the employer adopts a flexible response and imposes light disciplinary action (Note that no dispute arises if a flexible response is adopted and no action is taken) but the validity of said action should also be denied, conceivable methods are (i) to affirm the relevance of the worker's behavior as grounds for disciplinary action, but when judging the fairness of the disciplinary action, denying its fairness in consideration of the worker's circumstances, the employer's response, etc., and (ii) denying the relevance of the behavior as grounds for disciplinary action itself.

In one recent court precedent, the relevance of the worker's behavior as grounds for disciplinary action was itself denied, and the conclusion was therefore drawn that direct disciplinary action was invalid.[24]

(3) Positive Response

A flexible response is advantageous to the worker, in that no disciplinary action is suffered. To achieve the radical solution of treating the illness, however, the worker should be encouraged to undergo examination as soon as possible, and measures adopted in line with the examination result. When a worker is unaware of having an illness and therefore fails to undergo examination, it is conceivable that the illness will not be cured owing to a lack of treatment, but will instead advance with time, until the provision of labor will become completely impossible at any point in the future.

Based on this rationale, the "positive response" is one in which, when a worker's behavior could be subject to disciplinary action but is thought to be the product of mental illness, some measure is taken to achieve a shift from work to treatment, rather than taking disciplinary action.

This is in direct contrast to the rationale, stated under "formal response," that workers themselves should be responsible for their own health management, or the rationale that, out of respect for health privacy, employers should not interfere with workers' non-work related injury or illness.

An important statement on this point recently was made in the Supreme Court judgment on the Hewlett-Packard Japan Case.

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23 Sugeno, *supra* note 2, at 502.

24 *Hewlett-Packard Japan Case* (Tokyo High Ct., Jan. 26, 2011), 1025 Rodo Hanrei 5. Supporting it, Hasegawa, *supra* note 18, at 130.

2. The Hewlett-Packard Japan Case

(1) Factual Background

Worker X, the plaintiff in this case, was a systems engineer working for the defendant, Company Y.

Due to a persecutory delusion or some other mental illness, X was convinced that his daily life was being monitored in minute detail by a group of perpetrators who had been spying or eavesdropping on him for about three years, and that he was being harassed through co-workers and others in the workplace, even though none of this existed in reality. As a result, he thought his work was being obstructed and felt a risk that information about himself could be leaked outside the company. He therefore asked Company Y to investigate.

The investigation produced no result satisfactory to X, and Company Y refused to grant leave and urged X to return to work. X now informed Company Y that he would not return to work until he was sure the problem had been resolved, then, after using up all of his paid leave, he remained absent from work for about 40 more days without giving any notice of absence.

As a result, Company Y invoked its work rules ("when a worker is frequently absent from work and takes unauthorized absence without good reason for 14 continuous days or more") and asked X to resign.

X then requested confirmation of his contractual position, claiming Company Y's disposition to be invalid.

(2) Judgment of the First Instance

The judgment of the first instance[25] ruled that there was no justifiable or unavoidable reason for X to continue his absence from work, and that the absence in this case constituted "unauthorized absence" in both form and substance.

In addition, in that the disposition in this case was within the socially acceptable range, of X's claims, the claim for payment of wages from the day after the final judgment was dismissed as unlawful, in that there was no merit to be gained from the action, and the remainder were rejected.

(3) Study on the Judgment of the Second Instance

The judgment of the second instance[26] ruled that X's absence from work could be said to constitute "a case in which, due to unavoidable reasons, it is not possible to give advance notice" in Article 63 of the company's work rules, and that, as X could be deemed to have "used an appropriate method to communicate the absence to a supervisor," it was not reasonable to treat it as unauthorized absence.

On Company Y's response, the disposition in this case was judged invalid as it was

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[25] Tokyo Dist. Ct. Jun. 11, 2010, 1025 Rodo Hanrei 14.

[26] Hewlett-Packard Japan Case, *supra* note 24.

not possible to acknowledge grounds for disciplinary action, in that (i) if X was suspected to have a mental illness, it would have been conceivable to encourage X directly or through X's family or Company Y's EHS (Environment Health and Safety division) to return to the workplace, or else to urge X to take leave of absence until he had recovered from the mental illness, and (ii) if no mental illness was recognized, it was deemed that X would not have remained absent from work if Company Y had adopted a response such as notifying X of the disadvantages of long-term absenteeism. The characteristic point here is that it was not the fairness of the disciplinary action but the relevance as grounds for disciplinary action that was denied.[27]

As described below, the Supreme Court judgment embellished further and focused on the aspect of leave of absence in connection with a company's response when there is a suspicion of mental illness, as stated here in the judgment of the second instance.[28]

(4) Study of the Supreme Court Judgment

The Supreme Court denied the relevance of X's absence from work as grounds for disciplinary action in this case, just as the judgment of the second instance had done. However, it differed in content from the latter, stating "It is expected that workers who are recognized as remaining absent from work due to this kind of mental illness will continue not to attend work as long as the mental illness persists. Given that the cause and background of the absence was as stated above, therefore, Company Y as the employer should have adopted a response including providing a medical examination by a psychiatrist (according to the records, Company Y's work rules appear to include a provision to the effect that, if deemed necessary, an employee can be given emergency medical examination), studying dispositions such as leave of absence after recommending treatment if necessary, based partly on the result of said examination, and watching future developments. However, Company Y did not adopt this kind of response, but imposed the disciplinary action of forced resignation, in that X's absence from work was immediately assumed to have been taken without permission and without good reason because the reason for X's failure to attend work was based on a fact that did not exist. This action by Company Y could hardly be described as an appropriate response by an employer toward a worker suffering from mental illness.

"In that case, under such circumstances, it can only be construed that X's absence from work did not constitute unauthorized absence without good reason, as grounds for disciplinary action prescribed in the work rules. As such, this disposition, which was imposed because said absence was deemed to constitute grounds for disciplinary action, lacks the grounds for disciplinary action prescribed in the work rules, and must therefore be declared invalid."

According to this judgment, in cases when a worker is recognized as remaining ab-

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[27] Hasegawa, *supra* note 18, at 130.
[28] Iwade, *supra* note 15, at 117.

sent from work due to mental illness, it is deemed inappropriate for the employer to take disciplinary action without adopting a "positive response." In its judgment on the validity of forced resignation imposed on a worker in this kind of condition, the Supreme Court could be said to have adopted neither (i) the position that workers themselves are responsible for their own health management, nor (ii) the position that employers should not interfere with workers' non-work related injury or illness, out of respect for health privacy. This has had a huge impact on practice.[29]

As introduced in I above, court precedents have appeared to the effect that the severe disposition of disciplinary dismissal is an abuse of discretionary powers, based on the fact that unauthorized absence is caused by mental illness but there is a strong suggestion that management personnel or others may well harbor doubts that it is based on free will. Meanwhile, another theory to emerge is that, if absence from work without good reason or unauthorized absence is caused by illness, the path toward examination and treatment should first be explored before taking severe disciplinary action.[30] This judgment can also be positioned within such a trend. For workers who could potentially suffer from mental health problems, this will serve to mitigate their anxiety.

The Supreme Court declared that "It is expected that workers who are recognized as remaining absent from work due to mental illness will continue not to attend work as long as the mental illness persists." Although the judgment as to whether they are "recognized as remaining absent from work due to mental illness" will be differ slightly from case to case, even in such cases it could be seen as necessary for managers to acquire the skill to tell the difference. From the viewpoint of an employer who could be faced with workers suffering from mental health problems, it will mean tackling the major task of improving the relationship skills of management personnel and others.[31] The content of this Supreme Court judgment has thrown up this kind of major issue, but its direction is felt to be a desirable one.[32]

Incidentally, in this case, it was pointed out that Company Y's work rules appear to include a provision to the effect that, if deemed necessary, an employee can be given emergency medical examination. Although companies without this kind of provision are also thought to exist, as will be stated below, under the present system of the Industrial Safety

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[29] Iwade (*ibid.*) states "This is expected to have a serious impact on a par with the Katayamagumi Case (Sup. Ct., Apr. 9, 1998, 736 Rodo Hanrei 15)."

[30] Government/Japan Meteorological Agency Case (note 13). Iwade, *supra* note 15, at 118.

[31] In particular, it has been pointed out that careful consideration is needed, since taking sick leave tends to produce various disadvantages in terms of wages, retirement pay, pay rises, etc.; moreover, that an appropriate response based on medical findings is normally required, and that if this requirement is not satisfied, the very fact of giving leave of absence is itself deemed illegal (Iwade, *ibid.*, 119).

[32] As to how great a burden this places on the employer, it is not deemed to constitute an excessive burden, as employers often take disciplinary action after adopting this kind of response, e.g. recommending examination (Iwade, *ibid.*).

and Health Act, "Examination of the presence of subjective and objective symptoms" is included as an item of medical examination,[33] and symptoms arising from mental health illness are sometimes included in this.

This Supreme Court judgment is merely, after all, a judgment on disciplinary action. If, for example, this case was a case not of disciplinary action but of dismissal, would it still be considered difficult to say that taking measures such as dismissal, rather than adopting this kind of response, was appropriate as the employer's response against a worker suffering from a mental illness? Aside from the question of this judgment's relevance, we should watch closely to see whether similar statements will be made in future litigation on dismissal, etc.[34]

3. Issues Emerging

Two problems can be extrapolated from the study above. Namely, (i) how employers should obtain medical corroboration and take appropriate measures when a worker appearing to suffer from mental illness does not volunteer for medical examination, and (ii) how to train management personnel in the skill of correctly judging cases in which a worker is "recognized as remaining absent from work due to mental illness" when no medical corroboration has been obtained. According to a survey by the Ministry of Health, Labour and Welfare, some employers do not understand how to tackle mental health problems.[35]

So how do the existing law and administration deal with the problems outlined above?

III. Legal and Administrative Trends on Companies' Response to Workers Appearing to Suffer from Mental Illness

First of all, we need to review the Industrial Safety and Health Act, its draft amendment, and the Industrial Accident Prevention Plans produced by the administration based on the Industrial Safety and Health Act.

In Japan, the problem of how to protect workers' mental health has, in the main, been discussed in the form of a debate on the specific content of the obligation to consider safety. Employers are expected to discharge this obligation before the event, but only insofar as it

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[33] Article 44, Ordinance on Industrial Safety and Health.

[34] Iwade, *supra* note 15, at 119. Considering the considerable impact of the judgment in the Katayamagumi Case (note 29) on the judgment in the JR Tokai Case (note 5), this seems highly likely to occur.

[35] See 12th Industrial Accident Prevention Plan (Feb. 25, 2013). See also Shigeki Shiiba, "Wagakuni no Mentaruherusu Taisaku no Genjo to Kadai [Current status and issues of mental health measures in Japan]," 456 Business Labor Trend 3 (Mar. 2013), and Masato Gunji, "Shokuba no Mentaruherusu Taisaku no Jittai: Anketo Chosa kara [Situation of mental health in the workplace: From a questionnaire survey]," 456 Business Labor Trend 14 (Mar. 2013).

concerns the relationship with their liability for compensation after the event.[36] This has become another reason behind delayed progress in the debate on primary prevention.[37] Once an attempt is made to consider early prevention of risks related to mental health problems in the broad sense, concern for safety and health as a basic element of labor law could expand into all kinds of environments and decisions involving labor relations.[38]

Besides the Industrial Safety and Health Act, moreover, we also need to study a variety of trends in laws related to workers suffering from mental illness.

1. The Current Industrial Safety and Health Act

Article 66, paragraph 1 of the current Industrial Safety and Health Act obliges employers to give their workers regular general medical examinations. These examinations include “Examination of the presence of subjective and objective symptoms” (Article 44 of the Safety and Health Ordinance), and symptoms arising from mental health illness are sometimes included in this. Of course, specific methods are left to the judgment of the physician.[39] Employers are required to hear the opinion of a physician on necessary measures for maintaining the health of their workers based on the results of medical examinations (Article 66-4). Moreover, taking the physician’s opinion into consideration, and when they deem it necessary, employers must take measures including changing the location of work, changing the work content, shortening the working hours or reducing the frequency of night work, and other appropriate measures, considering the circumstances of the worker in question (Article 66-5).

If the physician entrusted with medical examination, on conducting mental health tests using an appropriate method, were to discover a mental health illness, appropriate measures could then be taken. However, it is unknown how often cases of this sort occur.

The Industrial Safety and Health Act provides that employers must endeavor to give health guidance by a physician or a health nurse for workers deemed particularly in need of efforts to maintain their health based on the results of medical examination (Article 66-7). There are some indications that many health nurses employed by businesses are involved in mental health education and the response to workers with mental health illness.[40]

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[36] Eri Kasagi, “Rodosha no Seishinteki Kenko no Hogo: Anzen Eisei no Shatei no Kakudai to Jugyoin Daihyo no Yakuwari ni Kansuru Ichishiron [Protecting workers’ mental health: An essay on expanding the range of safety and health and the role of employee representatives],” in *Rodohogaku no Tenbo* [Outlook for labor law studies], ed. Takashi Araki, Masahiko Iwamura and Ryuichi Yamakawa (Yuhikaku, 2013), 357.

[37] *Ibid*.

[38] *Ibid*., 372.

[39] Makoto Iwade, “Mentaruherusu Kentokai Hokoku ni Miru Mentaruherusu Mondai no Kongo no Kadai [Future tasks for mental health problems based on the report by the study group on mental health],” 233 Quarterly Labor Law 19.

[40] *Ibid*., 20. Article 66-8 of the Industrial Safety and Health Act stipulates that employers must provide face-to-face guidance by a physician for workers whose working hours or other conditions fall under one of the requirements specified in Ordinances of the Ministry of Health, Labour and Welfare

"On the Concrete Promotion of Provisional Measures for Mental Health" (Administrative Circular No. 0326002, issued March 26, 2009) stated that, when a mental health illness is ascertained during a medical examination, guidance and other assistance is to be given to ensure rigorous implementation of the follow-up measures in Article 66-5 and the health guidance in Article 66-7.

Again, Article 22 (x) of the Safety and Health Ordinance lists, among the matters to be discussed by Health Committees, "Matters relating to the establishment of measures for maintaining and improving workers' mental health." In response to this, the aforementioned Administrative Circular (i) cites rigorous implementation of investigation and deliberation by Health Committees or Safety and Health Committees as being among the important pillars of mental health measures in businesses, and (ii) highlights the importance of Health Committees in connection with formulating "Mental Health Promotion Plans."[41] As stated earlier, once an attempt is made to consider early prevention of risks related to mental health problems in the broad sense, concern for safety and health as a basic element of labor law could expand into all kinds of environments and decisions involving labor relations. And for the very fact that this is a problem with such breadth of relevance, there is considerable importance in labor-management dialog aimed at exchanging information and identifying problems related to stress in the workplace, and raising problems from the standpoint of workers. In that sense, the role that could be played by Health Committees is significant. However, legal provisions on the involvement of Health Committees and others relate only to "deliberation" (Industrial Safety and Health Act, Article 17 onwards); the authority to investigate and the effects of failing to deliberate are not made clear. Moreover, reports to the Committee in the event of a problem are basically left to the company's arbitrary decision (see Article 66-5, paragraph 1 and Article 66-8, paragraph 5 of the Industrial Safety and Health Act). In reality, the roles played by these organizations could probably not be described as large.[42]

2. Draft Amendment of the Industrial Safety and Health Act

Next, let us ascertain the government's aims for mental health maintenance and health privacy by studying the draft amendment of the Industrial Safety and Health Act. The draft amendment was scrapped with the dissolution of the Lower House of Representatives in 2012. As of September 2013, the intention was to brush it up and re-submit it to the Diet, but studying the scrapped draft amendment may reveal something of the government's

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with a view to maintaining the health of workers. Article 66-9 of the Act provides that employers must also endeavor to take necessary measures, as provided for in Ordinances of the Ministry of Health, Labour and Welfare, for other workers whose health requires consideration.

[41] Kasagi, *supra* note 36, at 372. See also Takashi Haratani, "Kokoro no Kea: Shokuba ha Nani wo Shitara Yoika [Care of mental health: What should workplaces do?]," 456 Business Labor Trend 9 (Mar. 2013), Shiiba, *supra* note 35, 5.

[42] Kasagi, *supra* note 36, at 373.

aims.

In the draft amendment, the proviso "(except when pertaining to the state of mental health; the same shall apply hereafter in this Article and in the following Article)" was to be added after "medical examination" in Article 66, paragraph 1 of the Act. A new Article 66-10 would be added to the Act, stating in paragraph 1 that "The employer must provide workers with a test by a physician or a health nurse to ascertain the state of the worker's mental health, as provided for by Ordinances of the Ministry of Health, Labour and Welfare." Following this, paragraph 2 specified the worker's obligation to undergo this test, while paragraph 3 provided for the employer's obligation to ensure that the test result would be notified to the worker by the physician or health nurse conducting the test, and the obligation of the physician or health nurse not to divulge the test result to the employer without the worker's consent. With this, workers would obtain medical information about their own mental health, they would be made aware that they were suffering from a mental illness, and a path through which they could willingly undergo examination would be created. However, the test results would not be disclosed to the employer; thus, it could be said, workers' privacy would be protected.[43]

The remainder of the Article from paragraph 4 onwards focuses on the worker's request to the employer for face-to-face guidance from the physician, stipulating that, if a worker who has received the notification of the test result in paragraph 3 wishes to receive face-to-face guidance from a physician and makes a request to the employer to this effect, the employer must provide face-to-face guidance by a physician, hear the physician's opinion on necessary measures for maintaining the worker's health based on the results of the guidance, and when deeming it necessary, take measures including changing the location of work, taking the physician's opinion into consideration.[44]

3. Industrial Accident Prevention Plans

Attempts to resolve the problem of poor knowledge by management and workers on the response to workers suffering from mental illness can be found in the government's Industrial Accident Prevention Plans.

The 12th Industrial Accident Prevention Plan, announced by the Ministry of Health, Labour and Welfare on February 25, 2013, addresses mental health measures as one of its topics. The Plan sets the target of "Increasing the proportion of businesses tackling mental health measures to 80% or more by 2017," and actually describes the directions for this area as being "To promote self-care by the workers themselves, while also promoting education,

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[43] Keiichiro Hamaguchi, "Rodoho no Rippogaku：Mentaruherusu no Rodoho Seisaku [Legislative Studies of Labor law: Labor Law Policy on Mental Health]," 232 Quarterly Labor Law 167 (2011).

[44] *Ibid*. See also Itaru Nemoto, "Mentaruherusu oyobi Judo Kitsuen Boshisaku to Rodoho [Mental health, passive smoking prevention measures and labor law]," 1057 Horitsu Jiho 43, Takenori Mishiba, *An-Ei-Ho Kaisei no Tenbo* [Prospects for amendment of the industrial safety and health act] (Rodo Chosakai, 2011), and Shiiba, *supra* note 35, at 8.

training and information provision to managers, supervisors and workers by employers." It also states "Since some businesses say they do not know how to tackle this issue, support measures enabling employers to make such efforts will be enhanced. Steps will be taken to strengthen support for small-scale businesses, in particular." A collection of case studies will be compiled, and "The collected examples of workplace reinstatement support will be analyzed, and a model program for workplace reinstatement support in line with business scale and other factors will be created." Finally, "As well as promoting efforts such as stress checks to encourage workers' self-awareness of stress, attempts to develop systems of consultation within businesses will also be promoted."

If this Plan comes to fruition, the number of management personnel and workers with sufficient knowledge on mental health increases, and any incidents occurring can be handled accurately in line with the model, early awareness and appropriate response will become a possibility.

4. Amendment of the Act on Employment Promotion, etc. of Persons with Disabilities

As described above, in terms of the Industrial Safety and Health Act, an adequate response cannot be said to have been adopted for two of the issues; but on the problem of poor knowledge by management and workers on the response to workers suffering from mental illness, an important factor that could influence the solution has appeared. This is the "Act for Partial Amendment of the Act on Employment Promotion, etc. of Persons with Disabilities," which was passed during the Diet session in 2013.

(1) Revised Basis for Calculating Legal Minimum Employment Rates

The Act for Partial Amendment of the Act on Employment Promotion, etc. of Persons with Disabilities (Law No. 46 of 2013) has added workers with mental illness to the basis for calculating legal minimum employment rates (with effect from April 1st, 2018). Until now, the disabled employment rate has been calculated using the total number of physically disabled and mentally disabled workers as the basis for calculation. But with this amendment, the rate will be calculated using the total number of physically disabled, mentally disabled and mentally ill workers as the basis for calculation. Once the Act comes into effect, employers will have to ensure that the number of physically disabled, mentally disabled and mentally ill workers they employ will be no less than a figure obtained by multiplying their total number of workers by the new disabled employment rate (Article 43 paragraphs 1 and 2).

According to media reports, the Labour Policy Council's Sectoral Commettee in the Ministry of Health, Labour and Welfare judged the outline of the draft amendment to be "generally satisfactory" on March 21, and as a result, the principle of mandatory employment of the mentally ill from April 2018 was decided. Various media reported that "The objects of mandatory employment under current law are the physically disabled and men-

tally disabled, and employers are permitted to be include their employment of mentally ill workers within the legal minimum employment rate. With the mandatory employment of mentally ill workers from FY2018, the legal minimum employment rate is expected to rise by several tenths of a point. However, considering the period needed for companies to prepare, etc., measures to protect against sudden change are also incorporated to ensure the flexible operation of the system, in case the government's corporate support measures are inadequate." Another comment was that "This draft amendment could rapidly accelerate the creation of an environment for employing the mentally ill and accepting them in the workplace."[45]

Given the mandatory employment of workers with mental illness, it is certain that workplace environments for accepting them will now be rapidly developed, understanding of the response to mentally ill workers will intensify among management and workers, and experience will be accumulated following acceptance. With this, skills in responding to mental illness and workers who appear to be suffering from them will also be honed. With discussion underway on broadening the definition of "disabled persons" in the Act, future trends will be under scrutiny.[46]

(2) Moves to Ratify the Convention on the Rights of Persons with Disabilities

Japan signed the Convention on the Rights of Persons with Disabilities in 2007, and in response to this, the Basic Act for Persons with Disabilities (Law No. 84 of May 21, 1970) was amended (latest amendment, Law No. 90 of August 5, 2011). The contents of the Convention and the Amendment of the Basic Act have spurred reforms of the legal system concerning employment of the disabled.[47]

In the area of Work and Employment (Article 27), the Convention is deemed to guarantee and promote the materialization of disabled rights through a variety of appropriate measures. These include promoting employment in the public and private sectors (1[g][h]), as well as (i) prohibiting discrimination with regard to all matters concerning all forms of employment (including conditions of recruitment, hiring and employment, continuance of employment, career advancement and safe and healthy working conditions) (1[a]), (ii) protecting the right to just and favorable conditions of work, safe and healthy working condi-

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[45] Evening edition page 1, *Nihon Keizai Shimbun*, Mar. 21, 2013 and Morning edition society page, *Nihon Keizai Shimbun*, Mar. 22, 2013, etc.

[46] As relevant literature, Hitomi Nagano, "Shogaisha Koyo Seisaku ni okeru Shogaisha no Han'i: Furansu ni okeru Shogai Nintei Seido wo Tsujita Kisoteki Kento [The range of disabled persons in disabled employment policy: Basic study based on the French system of disability certification]," in *Rodohogaku no Tenbo* [Outlook for labor law studies], ed. Takashi Araki, Masahiko Iwamura and Ryuichi Yamakawa (Yuhikaku, 2013), 79.

[47] Masao Karimata, *Shogaisha Koyo to Kigyo Keiei* [Disabled employment and corporate management] (Akashi Shoten, 2012), 46, and Fumiko Obata, "Shogaisha no Rodo Anzen Eisei to Rosai Hosho [Industrial safety and health and industrial accident compensation for the disabled]," in *Rodohogaku no Tenbo* [Outlook for labor law studies], ed. Takashi Araki, Masahiko Iwamura and Ryuichi Yamakawa (Yuhikaku, 2013), 389.

tions, and the redress of grievances (1[b]), and (iii) ensuring that reasonable accommodation is provided in the workplace (1[i]).[48]

The latest amendment, therefore, included provisions prohibiting discrimination against disabled workers in recruitment, hiring, remuneration and others (Articles 34 and 35); obliging employers to provide reasonable accommodation by preparing the facilities necessary for smooth execution of work, in consideration of the nature of the disability, assigning workers to provide assistance, and devising other measures, etc., while respecting the wishes of disabled workers (Articles 36-2, 36-3 and 36-4); providing advice, guidance and recommendations from the Minister of Health, Labour and Welfare (Article 36-6); and establishing a system of resolving disputes (Articles 74-6, 74-7 and 74-8).

The fact that reviews on reasonable accommodation of the mentally ill will be promoted in the workplace means that the skill of those in the workplace to correctly judge workers who appear to be suffering from mental illness will be improved.

(3) Effect on Problems Related to Workers Who Appear to Suffer from Mental Illness

Of the three characteristics of workers suffering from mental illness highlighted in I above, in the relationship between the first characteristic (that they behave abnormally and violate the corporate order) and the second characteristic (that there may be no self-awareness of illness and no attempt made to have it examined, and therefore medical information is not always known), the Amendment of the Act on Employment Promotion, etc. of Persons with Disabilities will provide a stimulus for employers to acquire the skill to correctly judge that a worker's violation of the corporate order is caused by mental illness, and even when no medical information can be obtained, to judge the existence of the illness and respond appropriately.

It is of course possible that, immediately after mentally ill workers have started to be accepted, problems will arise due to their inexperience, and this could cause a backlash from coworkers. However, once they have grown accustomed to the sight of mentally ill workers harnessing their individuality to contribute to the organization, those workers will change from a distant presence to a familiar one. This change of awareness, seen in the long term, should also mitigate their behavior in trying to hide that they are suffering from mental illness. This in turn will reduce the employer's difficulty in responding, which, of the three characteristics of workers suffering from mental illness mentioned in I above, derives from the third characteristic (that, out of fear of prejudicial treatment, they sometimes try to conceal the fact that they have an illness or are being treated for it).

[48] Karimata, *supra* note 47, at 63, and Ryosuke Matsui and Satoshi Kawashima, eds., *Gaisetsu Shogaisha Kenri Joyaku* [Summary of the convention on the rights of persons with disabilities] (Horitsu Bunkasha, 2010), 345.

Return to Work Following Mental Health-Related Absences: Effective Evidence-Based Reinstatement Support

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In response to requests from employers, the Department of Mental Health of the Panasonic Health Insurance Organization administers a reinstatement support panel to facilitate the return to work of employees who have been absent due to mental health issues. Since 2006, before convening a pre-reinstatement panel meeting for each patient, we have been conducting questionnaire surveys and performing various psychological tests during medical checkups, so as to examine correlations between survey and test findings and employees' performance after returning to work. The aim is to identify and clarify various factors influencing employees after returning to work, and the evidence obtained has been applied to provide more effective support. It has been found that generally, subjects who communicate well with healthcare personnel, Human Resources Department staff, and supervisors have a favorable prognosis after returning to work. In April 2013 a new reinstatement system for employees with mental health issues was introduced, under which a reinstatement support team is established for each employee with mental health issues to aid their return to work and minimize the risk of further mental health-related absences after reinstatement.

I. Introduction

Clinical depression in workplaces has gained increasing attention as a social issue in Japan, and the national government, public institutions, and companies have begun taking active steps to aid employees with mental health issues. As a rule, companies provide support according to their specific circumstances and needs in accordance with the Ministry of Health, Labour and Welfare (MHLW) "Support Guide for Workers Absent from Work due to Mental Health Problems to Return to Workplaces" (Revised March 2009) (Ministry of Health, Labour and Welfare 2009). Provisions for absence from and return to work, and programs to support employees, have made noticeable progress. Companies are taking the initiative in performing screenings to determine the feasibility of reinstating employees after mental health-related absences, and the accuracy of these screenings is improving. In recent years there have been progress reports that gauge the effectiveness of specific in-house reinstatement support systems and programs (Nanba 2012). Meanwhile prognosis surveys and pre-reinstatement rehabilitation programs run by the Vocational Center for Persons with

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Disabilities, a public institution, or reinstatement support centers at medical institutions, are reported to be effective in facilitating sustained employment after reinstatement. At the same time, such programs are still scarce, and Nagata (2012) has proposed measures and studies including the following: (i) Organization-wide preventive measures adopted in accordance with each employer's particular circumstances, and assessment of whether these measures are working (ii) Assessments of the relationships between occupational stress, work engagement, and social support, and intervention studies from the standpoint of positive mental health (iii) Development and assessment of effective reinstatement support programs (iv) Development and efficacy evaluation of basic professional education and training programs for young workers (v) Suicide prevention measures in the workplace and evaluations thereof, and (vi) Cost-benefit analysis of the above measures.

Against the above-described backdrop of mental health measures and related research in the business world, the Department of Mental Health of the Panasonic Health Insurance Organization has been commissioned by employers to administer a reinstatement support panel for employees returning to work after absences due to mental health issues. Since 2006, the Department has also been performing ongoing prognoses after employees' reinstatement following mental health-related absences. These include assessment of the employee's work continuation following reinstatement, compared against the results of psychological tests performed during medical examinations at time of reinstatement, responses to optional questionnaires administered one month before reinstatement, and other information obtained during medical examinations (Sugimoto, Takahashi, and Shinohara 2008; Sugimoto and Matsuda 2009; Sugimoto 2011a; Sugimoto 2011b; Sugimoto 2011c) The aim is to clarify what factors influence work conditions after reinstatement, so as to provide effective support to employees experiencing mental health issues.

Here I will describe one company's approach to smooth reinstatement of employees after mental health-related absences, taking into account the results of research conducted over the past six years and the current status of our reinstatement support efforts, from various viewpoints including those of members of the employees' divisions and health management staff.

The Center's reinstatement support panel has a history stretching back to January 1962. Since then the panel has been implemented, in conjunction with interviews with persons suffering from mental disorders, as one means of managing mental health (Kitagawa 1962). Thus the panel has an even longer history than the Department of Mental Health itself, which commenced operations in September 1963 when the Panasonic Health Insurance Organization was established. The panel, attended by psychiatrists, psychologists, and occupational health nurses from the Center as well as occupational health physicians and nurses from the health care center of the division to which the employee absent for mental health reasons belongs, assesses from a medical standpoint whether the employee is truly ready for reinstatement after the employee's attending physician has diagnosed him or her as eligible to return to work. Before the panel meets, there are preliminary medical exami-

nations by psychiatrists and psychological tests by psychologists, providing additional material to supplement the picture of the patient's clinical condition. Also, prior to the panel's meeting, occupational health physicians and nurses from the employee's division hold discussions with human resources staff and supervisors from that division, and have interviews with the employee in question, so as to evaluate the workplace environment to which the employee will be returning and identify issues impacting the feasibility of reinstatement. Participating members share their respective insights and the panel evaluates the subject's health status from a medical perspective. Thus the employee's division can obtain the panel's opinions with regard to various aspects of reinstatement and reinstatement support, on the premise that the final reinstatement decision will be made by the division itself.[1]

II. Content and Analytical Methods of This Study

The target group consisted of 1,045 Panasonic Group employees who consented to participate in this study during medical examinations at time of reinstatement. The group was 84.9% male (887 employees) and 15.1% female (158 employees), with an average age of 39.9 for men (±7.78) and 35.3 for women (±7.59). The study was conducted over more than five years, from February 1, 2006 to August 4, 2011 (Table 1).

Data for the study was used in accordance with the Panasonic Health Insurance Organization Health Care Center's "Guidelines for the Use of Panasonic Health Insurance Organization Data for Health Policy Formulation and Academic Study," and prior to the study, Health Care Center Data Extraction Requests were submitted and the permission of employees' division managers and the Health Care Center director obtained.

The scales employed for the study were determined by the Department of Mental Health based on responses to 35 questions, filled in by the subjects themselves, which were formulated on the basis of clinical observation. The questions covered seven items: (i) Sleep patterns, (ii) Use of time during leave of absence, (iii) Time spent outside the home, (iv) Family members' understanding of the situation, (v) Relationship to the workplace, (vi) Relationship to medical institutions, and (vii) psychological state during leave of absence. Responses to questions regarding day-to-day routines and psychological condition were on the four-level Likert scale from "Disagree" to "Agree"; questions on sleep and time spent out of the home were given direct responses (number of hours); responses to questions on regular visits to medical institutions and contact with the workplace were in "yes/no" form; and questions on time usage, contact with other people, etc. had multiple-choice responses. Responses to multiple-choice questions were converted to binary data prior to analysis.

With regard to multiple-choice questions on the five synthetic variables (anxiety about the future, family members' cooperation and understanding, regularity of sleep

[1] As the reinstatement support program was revised in April 2013, this description applies to administration of the system through March 2013.

Table 1. Breakdown of Subjects by Age Group (N=1045)

(%)

	Male N=887	Female N=158
20–29 yrs.	84 (9.5)	40 (25.3)
30–39 yrs.	341 (38.4)	75 (47.5)
40–49 yrs.	350 (39.5)	34 (21.5)
50–59 yrs.	112 (12.6)	9 (5.7)

patterns and day-to-day routines, feelings of panic or remorse, frequency/duration of falling back asleep after waking, and usage of free time) identified in a 2009 study (Sugimoto and Matsuda 2009) employing the same questionnaire, the term of observation was said to begin with the medical examination at time of reinstatement and end with the subject's second leave of absence or resignation due to illness. Kaplan-Meier analysis was used to calculate the cumulative work continuation rate with the medical examination at time of reinstatement as a start point, and three assessment points afterward: convening of the reinstatement support panel (two weeks afterward), six months after reinstatement, and one year after reinstatement.

With regard to the six POMS (Profile of Mood States, Japanese version) factors and five subscales of the new TEG II (Tokyo University Egogram) as well, the term of observation was said to begin with the medical examination at time of reinstatement and end with the subject's second leave of absence or resignation due to illness, and Kaplan-Meier analysis was used to calculate the cumulative work continuation rate with the medical examination at time of reinstatement as a start point, and three assessment points afterward: convening of the reinstatement support panel (two weeks afterward), six months after reinstatement, and one year after reinstatement.

With the six POMS factors expressing emotional state (Tension-Anxiety, Depression-Dejection, Anger-Hostility, Vigor-Activity, Fatigue-Inertia, and Confusion-Bewilderment) and the five new TEG II subscales expressing ego state (Critical Parent, Nurturing Parent, Adult, Free Child and Adapted Child) as well as gender, occupation, age, number of leaves of absence, and mental health condition, categorized into groups, as independent variables, and work continuation or discontinuation (leave of absence or resignation due to illness) as dependent variables, the Cox proportional hazards model was used to assess the risk of absence or resignation from work. Occupations were placed in three categories: manufacturing (assembly line work), development (engineering, systems, and research), and administration (sales, service, and office work). Age groups consisted of 22–29 years, 30–39 years, 40–49 years, and 50–59 years of age. To examine variables relating to number of leaves of absence, subjects were subdivided into those with two or fewer leaves of absence, and those with three or more. In terms of mental health condition, subjects were given an ICD-10 diagnosis and divided into four groups: Group 1 (F31: Bipolar affective disorder), Group 2 (F32: De-

pressive episode, F33: Recurrent depressive disorder, and F34: Persistent mood [affective] disorders), Group 3 (F41: Other anxiety disorders, F43: Reaction to severe stress, and adjustment disorders, and F45: Somatoform disorders), and Group 4 (F20: Schizophrenia and F60: Specific personality disorders). With regard to the POMS factors (Tension-Anxiety, Depression-Dejection, Anger-Hostility, Vigor-Activity, Fatigue-Inertia, and Confusion-Bewilderment), raw score was converted to a T-score. With the POMS case study indicators as a reference (Yokoyam, Shimoyama, and Nomura 2002), for the purposes of this study, subjects with a T-score of 60 or above were categorized as "critical" except for the Vigor-Activity factor, for which those with a T-score under 40 were categorized as "critical" and others categorized as "noncritical" For each of the factors, subjects were divided into two groups according to T-score, with the critical group assigned a value of 1 and the noncritical group assigned a value of 0.

For each of the five subscales on the new TEG II, those in the 50th percentile or above were assigned a value of 1 as the high group, and those below the 50th percentile were assigned a value of 0 as the low group. It should be noted that with regard to the validity scales and question scales of the TEG, data judged unreliable based on the new TEG II handbook was eliminated (TEG Study Group, Department of Psychosomatic Medicine, Faculty of Medicine, the University of Tokyo 2006, 35). (S-PLUS version 8.1 was used for statistical analysis.)

III. Results

To place findings in context, other information about subjects was recorded, including marital status. 539 men (60.8%) and 52 women (32.9%) were married, 321 men (36.2%) and 90 women (57.0%) had never been married, and 27 men (3.0%) and 16 women (10.1%) were divorced or had deceased spouses (Table 2).

In terms of academic history, 14 men (1.6%) and five women (3.2%) had graduated junior high school only, while 228 men (25.7%) and 51 women (32.3%) had completed high school. 71 men (8.0%) and 12 women (7.6%) had graduated college of technology or professional training college, three men (0.3%) and 18 women (11.4%) had completed junior college, 395 men (44.5%) and 51 women (32.3%) were university graduates, and 176 men (19.8%) and 21 women (13.3%) had completed graduate school.

Engineering and research were the most common fields among the subjects, and university graduates were the most numerous, followed by those completing high school. It is notable that the subjects tended to be highly educated and to be engaged in intellectually demanding work (Figure 1 and Table 2).

The most common condition among the ICD-10 diagnoses was F33: Recurrent depressive disorder at 25%, with these subjects accounting for 60% of those in the F30–F39 (Mood [affective] disorder) category (Figure 2).

All 1,045 of the subjects (887 men [84.9%], 158 women [15.1%]) gave responses to

Table 2. Subjects' Background (N=1045)

(%)

	Male N=887	Female N=158
Marital status		
Married	539 (60.8)	52 (32.9)
Single	321 (36.2)	90 (57.0)
Other (divorced or spouse deceased)	27 (3.0)	16 (10.1)

	Male N=887	Female N=158
Highest level of education completed		
Junior high school	14 (1.6)	5 (3.2)
High school	228 (25.7)	51 (32.3)
College of technology / Professional training college	71 (8.0)	12 (7.6)
Junior college	3 (0.3)	18 (11.4)
University	395 (44.5)	51 (32.3)
Graduate school	176 (19.8)	21 (13.3)

the multiple-choice questions regarding "use of time during leave of absence." With regard to the five synthetic variables, when responses with missing values were eliminated, 1,032 subjects (875 men [84.8%], 157 women [15.2%]) gave responses covering all items, and this data set was used for analysis. POMS assessments were performed for 760 subjects (635 men [83.6%], 125 women [16.4%]), and the new TEG II for 966 subjects (819 men [84.8%], 147 women [15.2%]).

It can be inferred from the findings that compared to workers with two or fewer leaves of absence, those with three or more are more likely, after reinstatement, to take future leaves of absence or undergo recurrence of symptoms leading to resignation. The cumulative work continuation rate for each group is shown in Table 3.

The results of psychological tests indicated that those whose "vigor" scores on the POMS assessment placed them in the critical category had low cumulative work continuation rates at all three observation points (two weeks after medical examination for reinstatement, six months later, and one year later) (Table 3). Meanwhile, those in the "high" group (50th percentile or above) on the Free Child scale of the new TEG II had high cumulative work continuation rates at all three observation points as well (Table 3).

When the Cox proportional hazards model was applied, those with vigor scores low enough to be "critical" had a hazard ratio of 1.48 (1.07–2.05) compared to those not "critical," making this a significant indicator ($p<0.05$) (Table 4).

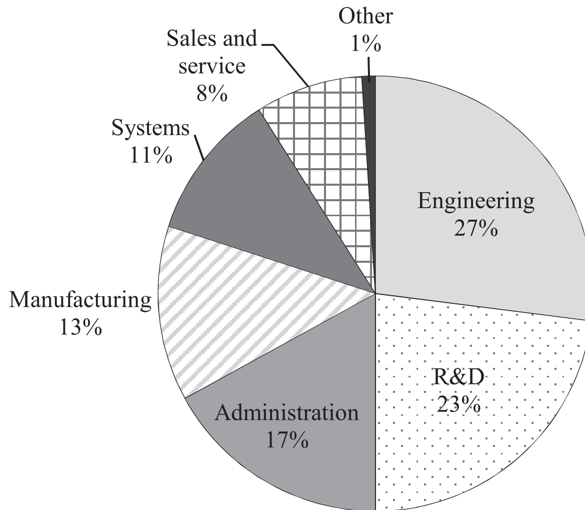

Figure 1. Breakdown by Occupation

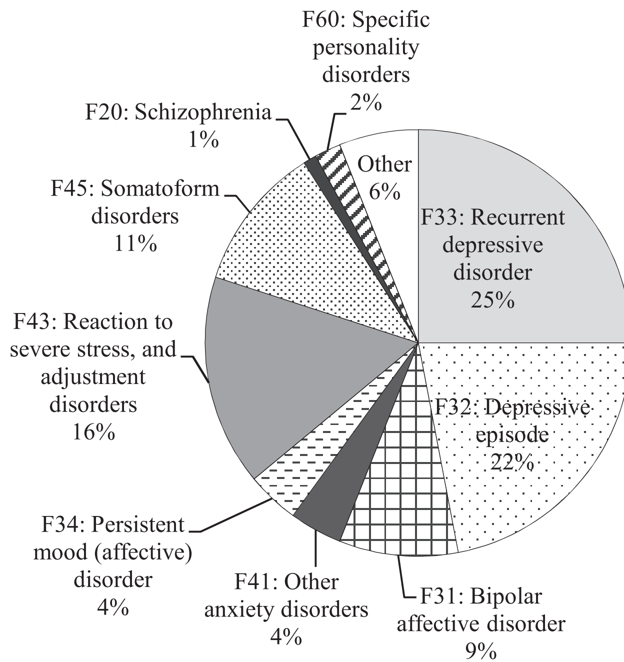

Figure 2. Breakdown of ICD-10 Diagnoses

Table 3. Cumulative Work Continuation (CWC) Rate

Moderator variables		Three or more N=113		Two or fewer N=932		Log rank test p-value
		CWC rate	95%CI	CWC rate	95%CI	
Number of leaves of absence	2 wks later	89.4	83.7–95.1	93.3	91.7–94.9	p < 0.01
	6 mos. later	63.1	53.9–72.4	75.4	72.5–78.2	
	1 yr later	50.0	39.7–60.3	62.1	58.7–65.4	
Five factors related to use of time during leave of absence		Irregular N=57		Regular N=489		Log rank test p-value
		CWC rate	95%CI	CWC rate	95%CI	
Regularity of sleep patterns and day-to-day routines	2 wks later	88.1	84.5–91.6	95.4	93.8–96.9	p < 0.01
	6 mos. later	67.5	62.3–72.7	77.1	73.9–80.3	
	1 yr later	52.9	47.1–58.7	64.6	60.8–68.4	
Multiple-choice questions regarding use of time during leave of absence		Unselected N=557		Selected N=488		Log rank test p-value
		CWC rate	95%CI	CWC rate	95%CI	
②Helping with housework	2 wks later	91.6	89.3–93.9	94.5	92.4–96.5	p < 0.01
	6 mos. later	70.2	66.3–74.1	78.5	74.7–82.2	
	1 yr later	56.0	51.5–60.5	66.1	61.6–70.5	
		Unselected N=503		Selected N=542		Log rank test p-value
		CWC rate	95%CI	CWC rate	95%CI	
④Using a computer	2 wks later	93.2	91.0–95.4	92.6	90.4–94.8	p < 0.05
	6 mos. later	77.0	73.2–80.8	71.4	67.5–75.3	
	1 yr later	64.2	59.7–68.8	57.7	53.3–62.2	
		Unselected N=712		Selected N=333		Log rank test p-value
		CWC rate	95%CI	CWC rate	95%CI	
⑦Other	2 wks later	92.4	90.5–94.4	94.0	91.4–96.5	p < 0.05
	6 mos. later	72.5	69.1–75.9	77.4	72.8–82.0	
	1 yr later	58.2	54.4–62.1	66.5	61.1–72.0	
POMS		Critical group N=141		Noncritical group N=619		Log rank test p-value
		CWC rate	95%CI	CWC rate	95%CI	
Vigor scale	2 wks later	83.7	77.6–89.8	94.7	92.9–96.4	p < 0.01
	6 mos. later	64.4	56.4–72.4	76.9	73.5–80.4	
	1 yr later	51.3	42.3–60.4	64.2	60.0–68.4	
New TEG II		Below 50th percentile N=575		50th percentile or above N=391		Log rank test p-value
		CWC rate	95%CI	CWC rate	95%CI	
Free Child scale	2 wks later	92.2	90.0–94.4	95.4	93.3–97.5	p < 0.01
	6 mos. later	72.0	68.3–75.8	78.9	74.7–83.1	
	1 yr later	57.5	53.2–61.8	67.6	62.6–72.6	

95% CI: 95% confidence interval.

Table 4. Hazard Ratio of POMS and New TEG II Subscales

	POMS (N=760)	Hazard ratio	95% confidence interval	p
T-A	(Noncritical group)	1.00	—	0.56
	(Critical group)	0.96	0.86–1.09	
D	(Noncritical group)	1.00	—	0.95
	(Critical group)	1.01	0.62–1.65	
A-H	(Noncritical group)	1.00	—	0.50
	(Critical group)	1.20	0.69–2.10	
V	(Noncritical group)	1.00	—	$p < 0.05$
	(Critical group)	1.48	1.07–2.05	
F	(Noncritical group)	1.00	—	0.08
	(Critical group)	1.24	0.97–1.58	
C	(Noncritical group)	1.00	—	0.87
	(Critical group)	0.95	0.55–1.63	
	New TEG II (N=966)	**Hazard ratio**	**95% confidence interval**	**p**
CP	(Low value group)[a]	1.00	—	0.51
	(Non-low value group)[b]	1.08	0.84–1.40	
NP	(Low value group)	1.00	—	0.16
	(Non-low value group)	0.84	0.66–1.07	
A	(Low value group)	1.00	—	0.90
	(Non-low value group)	1.01	0.79–1.30	
FC	(Low value group)	1.00	—	$p < 0.05$
	(Non-low value group)	0.73	0.56–0.94	
AC	(Low value group)	1.00	—	0.94
	(Non-low value group)	1.00	0.79–1.27	

[a]Low value group: below the 50th percentile.
[b]Non-low value group: the 50th percentile or above.
Notes: 1. All variables input at once for analysis.
2. Independent valuables are, age: 20–29 years, 30–39 years, 40–49 years, 50–59 years; gender; occupation: manufacturing, development, administration; number of leaves of absence: three or more, two or fewer; disorder: group 1, group 2, group 3, group 4.
3. The independent variable “three or more absences” in POMS showed a significant difference ($p<0.05$).
4. The independent variables “disorder group 1” and “three or more absences” in New TEG II showed a significent difference ($p<0.05$).

Noteworthy among the new TEG II scales was the Free Child scale, on which those in the 50th percentile or above had a hazard ratio of 0.73 (0.56–0.94) compared to those below the 50th percentile, meaning that high scores on this scale were correlated with a 27% risk reduction ($p<0.05$) (Table 4). Note that variables are plugged in at once and stepwise regression is not used.

The questionnaire results were cross-referenced with the five synthetic variables, and it was found that those with "③ regular sleep patterns and day-to-day routines" had high cumulative work continuation rates at all three observation points (two weeks after medical examination for reinstatement, six months later, and one year later) (Table 3). High cumulative work continuation rates at all three observation points were also observed for those who selected "② helping with housework" as a response to the question regarding use of time during leave absence. Also, this study found that the group selecting "④ using a computer" had low cumulative work continuation rates at all three observation points, while the rate was high among those selecting "⑦ other."

When the Cox proportional hazards model was applied, those with high "regularity of sleep patterns and day-to-day routines" had a hazard ratio of 0.70 (0.56–0.87) compared to those with low regularity, meaning that high scores on this item were correlated with a 30% risk reduction ($p<0.01$) (Table 5).

With regard to "use of time during leave of absence," those who selected "② helping with housework" had a hazard ratio of 0.65 (0.52–0.81) compared to those who did not, meaning this response was correlated with a 35% risk reduction ($p<0.01$), while those selecting "④ using a computer" had a hazard ratio of 1.27 (1.02–1.59) compared to those who did not, making this a significant indicator ($p<0.05$). Also, as the selection of "⑦ other" as a response to the question regarding specific use of time during absence emerged as a significant indicator ($p<0.05$) in this study, I will summarize here the contents of free responses describing this use of time.

When subjects who selected "⑦ other" (approximately 32% of the total) were asked to provide details, the most common response was "rehabilitation programs or daytime use of welfare facilities," followed by "reading or studying" (self-study of English or job-related subjects), "fitness or sports," and "going out of the house, for walks, etc."

To provide further information on free responses describing "use of time during leave of absence": Among those who selected "Agree" in response to the item "I thought about what I needed to do before going back to work, set goals and pursued them," a large number of respondents provided the following specifics: "establishing a stable day-to-day routine," "visiting a reinstatement support facility," and "rebuilding my physical strength." With regard to "going out of the house," respondents frequently specified objectives for going out as follows: (i) Shopping or dining out (ii) Visiting a reinstatement support facility (iii) Exercise in order to build physical strength (iv) Taking a walk (v) Reading at the library. Places often visited included "supermarkets or shopping centers," "libraries," and "reinstatement support facilities," with many visiting parks or places around their neighborhoods as well. In terms of "hobbies pursued during leave of absence," the most common responses were (i) sports (ii) reading and (iii) listening to or performing music.

These findings provide highly meaningful information on employees' use of time during leaves of absence for mental health reasons. In the future I intend to analyze these results in greater detail. Meanwhile, in the latter part of this paper I will present case studies

Table 5. Hazard Ratios for Questionnaire on Use of Time during Leave of Absence

Five factors pertaining to use of time during leave of absence (N=1032)	Hazard ratio	95% CI[a]	p
Low level of anxiety about the future	1.00	—	0.25
(High)	1.14	0.90–1.46	
Low level of cooperation and understanding from family members	1.00	—	0.12
(High)	0.84	0.68–1.04	
Irregular sleep patterns and day-to-day routines	1.00	—	$p < 0.01$
(Regular)	0.70	0.56–0.87	
Feelings of impatience or remorse not strong	1.00	—	0.91
(Strong)	1.01	0.80–1.27	
Going back to sleep infrequently	1.00	—	0.29
(Frequently)	1.12	0.90–1.38	

Multiple choices regarding use of time during leave of absence (N=1045)		Hazard ratio	95% CI[a]	p
① Taking it easy	(Not selected)	1.00	—	0.17
	(Selected)	1.19	0.92–1.52	
② Helping with housework	(Not selected)	1.00	—	$p < 0.01$
	(Selected)	0.65	0.52–0.81	
③ Watching TV	(Not selected)	1.00	—	0.23
	(Selected)	0.87	0.70–1.09	
④ Using a computer	(Not selected)	1.00	—	$p < 0.05$
	(Selected)	1.27	1.02–1.59	
⑤ Playing video or computer games	(Not selected)	1.00	—	0.17
	(Selected)	1.22	0.92–1.61	
⑥ Pursuing hobbies	(Not selected)	1.00	—	0.57
	(Selected)	1.06	0.86–1.31	
⑦ Other	(Not selected)	1.00	—	$p < 0.05$
	(Selected)	0.74	0.58–0.94	

[a] 95% confidence interval.

Notes: 1. All variables input at once for analysis.

2. Independent valuables are, age: 20–29 years, 30–39 years, 40–49 years, 50–59 years; gender; occupation: manufacturing, development, administration; number of leaves of absence: three or more, two or fewer; disorder: group 1, group 2, group 3, group 4.
3. The independent variable “three or more absences” in the five factors pertaining to use of time during leave of absence showed a significent difference ($p<0.01$).
4. The independent variable “three or more absences” in the multiple-choice questions to use of time during leave of absence showed a significent difference ($p<0.01$).

in which this information was used to assist with reinstatement.[2]

IV. Observations and Clinical Applications

In terms of moderator variables, there is a significant inverse correlation between taking three or more leaves of absence and work continuation thereafter (Table 3). This reinforces the findings of numerous prior studies, and is evidence of the existence of highly difficult cases entailing repeated absences and reinstatement, or of serious clinical conditions such as bipolar disorder. It appears that employees who take repeated leaves of absence despite being given adequate consideration in the workplace have come to view such absences as commonplace and have lowered resistance to the idea of taking leave again. From the six-month observation point onward there is a major disparity in cumulative work continuation rate, and with regard to long-term work continuation, it is necessary to adopt a different approach with employees whose repeated leaves of absence and reinstatements total three or greater.

In these cases, when the reinstatement support panel convenes, consideration is given to employee tendencies and advice offered from medical and psychological perspectives, including ongoing assistance from the health center in readapting to the workplace after reinstatement. When employees lack the proper attitude towards reinstatement or are otherwise unprepared to return to work, they are encouraged to take part in rehabilitation programs or visit external EAP (Employee Assistance Program) counseling facilities. However, the most challenging cases are often greatly influenced by factors unique to the individual. These cases are often difficult to handle and require individual analysis and careful consideration, as there is no one-size-fits-all solution.

The results of psychological tests administered during medical examinations prior to convention of the reinstatement support panel indicate that subjects with critical scores on the Vigor scale of the POMS assessment, or who scored lower than the 50th percentile on the Free Child scale of the TEG test, have a significant risk of taking further leaves of absence or resigning for mental health reasons (Tables 3 and 4). These findings suggest that for employees on leaves of absence, recovering drive and vigor at least by the time of the medical examination prior to reinstatement, and ensuring they are not in a repressed or depressed emotional state, are positive contributors to work continuation thereafter. It is very important to note that the POMS and TEG scores are highly accurate predictors of performance after reinstatement, and play a key role as indicators of readiness to return to work.

The POMS and TEG tests, which are already in use in other fields and place relatively little burden on administrators and subjects alike, can not only be used proactively as a means of assessing preparedness for reinstatement, but also as self-monitoring tools after

[2] The findings elaborated here include additions and revisions to the content presented at the 76th Annual Convention of the Japanese Psychological Association.

reinstatement and for a wide range of other purposes. At Panasonic, during initial preventive mental health training, the new TEG II is sometimes used as a self-care-oriented teaching aid.

The field of psychology has thus far generally taken an approach that emphasizes mental disorders and problems, but in recent years there has been a trend towards "positive psychology" that focuses on subjects' strengths and positive traits, and aims to boost the health and happiness levels of organizations (Seligman 2011). In line with this trend, the field of occupational mental health has also been increasingly focused on "work engagement," a concept defined as a three-part composite of vigor, dedication, and absorption. Here vigor is defined as "high levels of energy and mental resilience while working" (Shimazu 2012; Schaufeli and Dijkstra 2012, 1–38). While the vigor or drive assessed by POMS is not exactly the same as the vigor that forms part of work engagement, it is extremely important to recognize that maintaining a certain level of vigor, drive and energy is an essential prerequisite for work continuation. Use of work engagement assessment scales as one of the post-reinstatement evaluation methods is currently under consideration.

It has been pointed out that there is a need for more objective assessments of the condition of workers who take leaves of absence due to mental health issues. From a neurological standpoint, numerous studies have employed functional magnetic resonance imaging (fMRI) or single-photon emission computed tomography (SPECT) scans to examine relationships between brain states, cognitive functioning during task completion, and depression (Hedden et al. 2008; Kanba and Utsumi 2011, 179–202), while in the occupational health field, there have been reports on the correlations between subjective fatigue experienced by depression sufferers and diminished functioning of the prefrontal cortex, or decline in blood flow to the frontal lobe (Ogawa 2010). With regard to correlations between depression and cerebral blood flow, in the past few years there has been a dramatic increase in research (Ogawa 2012) on connections between depression and decreased cognitive functioning using NIRS (near-infrared spectroscopy) optical topography, approved by the Ministry of Health, Labour and Welfare (MHLW) of Japan in 2009 as an advanced medical technique for differential diagnosis of depression. If progress in studies such as these further clarifies parallels between degree of recovery from depression and changes in cerebral blood flow, it could assist with post-reinstatement prognosis and more objective assessment of employees reinstated after mental health-related leaves of absence, primarily for depression, and facilitate effective follow-up treatment of mental disorder sufferers even if they have few subjective symptoms.

At the Department of Mental Health of the Panasonic Health Insurance Organization, in addition to carrying out the studies outlined above, we obtained research support from the Foundation of the Japanese Certification Board for Clinical Psychologists in April 2012, and have been administering the Self-Diagnosis Checklist for Assessment of Workers' Accumulated Fatigue and the new Stroop Test II to assess factors impacting work continuation after reinstatement. These assessments aim to clarify further the correlations between "vigor

and drive," "fatigue" and work continuation, which have been apparent in studies thus far. While employees who had taken leave for mental health reasons were taking the new Stroop Test II, volumes of hemoglobin alteration in the frontal brain region were experimentally measured using a near-infrared cerebral blood flow evaluation system, and the results compared to readings for healthy employees. We are amassing data to be used for multifaceted examination of correlations between neurological state and work continuation, as well as parallels with the vigor, drive and fatigue that we continue measuring with standard psychological tests. While this research is still in progress, it has already found that employees who had taken leave for mental health reasons had significantly lower rates of accurate task completion than healthy employees, and there were disparities in hemoglobin alteration in the frontal brain region as well. In addition, these employees had noticeably poor self-awareness of fatigue, and the findings suggest possible problems with neural energy efficiency during task completion. We will continue to examine the details and compile a final report on the findings.

The results of questionnaires distributed to employees revealed that among the five synthetic variables "regularity of sleep patterns and day-to-day routines," and in terms of use of time during leave of absence "② helping with housework," were correlated with improved work continuation after reinstatement (Tables 3 and 5). As we accumulate more data, this trend remains consistent across the board. The demonstrable connection between regular sleep patterns and daily routines at the time of the medical examination for reinstatement, as well as helping with housework during the month prior to the medical examination, and high probabilities of work continuation six months and one year after reinstatement, will prove highly useful in providing guidance to employees on use of time during leave of absence in the future. Conversely, "using a computer" was correlated inversely to work continuation at all three observation points, and from the additional information provided in employees' free answers, it was evident that in particular Net surfing, online games and other unstructured leisure use of computers had a negative impact (Tables 3 and 5). From a clinical standpoint, during pre-reinstatement counseling, many employees were unable to complete assigned tasks on a computer in the given period, taking large amounts of time and accumulating fatigue. By supplementing the questionnaire with further items about specific uses of computers, we aim to gain a more precise picture of the specific factors.

There are five stages in the reinstatement support process (Sugimoto 2013, 98), and we believe that effective support can be provided if we make optimum use of psychological tests and questionnaire responses at each stage. In terms of individual prognosis, employees taking leaves of absence for mental health reasons are seen as going through the stages of acute, recovering, preparing for reinstatement, and negotiating reinstatement, before returning to work (AERA 2009, 22). Here, I will present some case studies of employees provided with support and counseling at the Department of Mental Health that makes use of the

above research findings.[3]

Case Study 1

Male, 20–29 age group, engineer, university graduate, unmarried, diagnosed with depression, three leaves of absence

As a university student, the subject had a period when he was unable to cope and stayed indoors for a length of time, missing classes as the university. After graduating he was hired by the company during Japan's so-called economic bubble period. Soon after completing training for new employees and being assigned to a division, he was unable to adapt to the new environment and took a short leave of absence. Afterward, thanks to thoughtful consideration on the part of his supervisor and others, things went smoothly for one or two years.

However, after the collapse of Japan's economic bubble, new employees that were his juniors began performing extremely well, all of them being outstanding workers who were hired despite extremely sluggish employment conditions. The subject felt anxious as a result. Under these circumstances, when he was placed on a new project and asked to fulfill quotas, and the project happened to be in an unfamiliar field that required considerable study, he was unable to complete tasks during normal working hours and worked increasing amounts of overtime. He came home late every night and ate dinner and went to bed late, but even then was unable to sleep, and began drinking more alcohol. The employee was on a flex-time system that required him to be at work during core hours, and he was present, but worked in chronically poor physical condition. In this state he was unable to concentrate at work and his progress was slow, sparking an incident in which he argued over work procedures with a junior colleague to whom he had formerly provided instruction, and their supervisor had to intervene. After this his motivation declined and absences from work increased. Concerned, the employee's superior consulted occupational health physicians in the health care center of his division, who referred the employee to us for examination.

On examination, the subject appeared to be burned out and exhausted, yet when the topic turned to the co-worker with whom he had argued, or to his dissatisfaction with his supervisor, his expression suddenly became extremely animated and hostile. Rather than being a classic case of depression, his case was rooted in an immature personality leading to inability to adapt to the workplace and resulting in a depressive state. It appeared to fit the "contemporary depression model" becoming increasingly common among young people. To recover from severe fatigue and depression, he was diagnosed as requiring rest, and began his second leave of absence.

After he stopped working, his symptoms disappeared relatively quickly, and after recovering he spent the remainder of his leave of absence on activities he enjoyed such as

[3] The details of case studies have been modified in part or elements of other cases have been added to prevent identification of specific individuals.

hobbies and travel. Being back in good condition, he was reinstated in the same division as before.

After reinstatement, he was given special consideration by the company and treated protectively by his supervisor, and his work progressed smoothly once again. However, he received a shock when his performance evaluation at the end of the fiscal year was poorer than expected, and he lost motivation and once again went into a decline. Dejected and lacking confidence, he made statements to the effect that there was no point in living, and with suicidal ideation and depression more serious than before, he was once again given a leave of absence.

During this third leave of absence his symptoms stubbornly persisted, and he stayed at home practically bedridden, appearing for medical examinations unshaven and sloppily dressed. After a lengthy period his condition improved somewhat, and as there was a need to overhaul his day-to-day routines, he began receiving counseling along with medical examinations.

Initially, during weekly counseling sessions, he was asked to produce a chart of his daily routine, which was checked by the counselor. The chart showed that he went to bed at 1:00 or 2:00 AM and woke up around 8:00 or at times as late as 10:00 AM. He spent long periods of time playing video games or surfing the Internet, and it was evident he went entire days without doing anything productive. The employee lived alone, with his mother visiting two or three times a month to clean and cook. It was necessary to change his lifestyle to the extent that he could fend for himself, and the first steps were to instruct him to wake up at 7:00 AM and limit the amount of time spent on video games or Internet surfing. At first he was unable to get up at the designated time, and only ate a light breakfast before commencing to play video games, so it was suggested that he disconnect the game console from the TV and put it in the closet, and place strict limits on computer use as well. Reluctantly, he agreed and put the proposals into effect, but without the video games he began spending longer times watching TV or using the computer, and only left the house to stock up on food at the convenience store or supermarket. In order to break out of this behavior pattern, he was instructed to begin each day by (i) first of all changing clothes and grooming himself, and then (ii) going to the nearby convenience store to buy breakfast, the newspaper, etc. After he had more or less adapted to this new schedule, the list of daily activities was gradually increased to include cleaning the house after breakfast, doing simple stretches indoors, getting exercise, and so forth.

The next step was to start going to the gym two or three times a week, and on days when he did not go the gym, to go to the library or elsewhere—in any case, to go out of the house more and more often. While his physical condition varied from day to day, he was able to adhere to a regular schedule. Unfortunately when things were getting back on track, he went out drinking with a friend and got carried away, drinking until the wee hours of the morning. Afterward he felt ill and once again his day-to-day lifestyle fell into chaos. During counseling, which had previously focused on reflecting on his approach to work tasks and

relationships with co-workers (while taking into consideration his narcissistic tendencies and fragile ego), this episode was discussed. It was evident that despite making the greatest possible efforts, he was easily swept along by the tide of events, and measures to address this were explored.

During his leave of absence, the employee also met regularly with staff from his division's health care center, and the staff made contact with his attending physician as needed. From this it became clear that he had difficulty communicating with others in the workplace (extremely judgmental, he dealt harshly with those he disliked or disrespected, but on the other hand was excessively swayed by the opinions of those he liked and trusted.) It seemed that he might benefit from a rehabilitation program run by the Vocational Center for Persons with Disabilities, where he could interact with others in the same situation, and so he was advised to participate.

The subject agreed with surprising readiness to attend the program at the Vocational Center, and the program produced extremely positive results, indicating that communication with others in a similar position was beneficial as expected. After completing the rehabilitation program as scheduled, he was diagnosed as eligible for reinstatement, and submitted a request to return to work. The reinstatement support panel members shared a consistent understanding of the employee's above-described interpersonal behavior patterns and personality traits as well as his lack of confidence in his own competency as an employee, and there was a discussion of how his situation should be handled. The employee was removed from his previous project and reassigned to a supervisor he trusted, under whom he performed routine auxiliary tasks. To ensure consideration for the employee's situation, occupational health physicians in the division shared the reinstatement support panel's information with the Human Resources department and his supervisors, and he was officially reinstated. After reinstatement, while there was a period during which he appeared tired toward the end of the week, he was able to recover by taking it easy on the weekends, and after a few months was able to complete a week of work without difficulty. After reinstatement the employee continues visiting the Department of Mental Health periodically for examinations and counseling, and is given follow-up support. His division's occupational health physicians also conduct regular interviews, and he continues attending a follow-up program at the Vocational Center in order to associate with the fellow rehabilitation program alumni he got to know there. One year after reinstatement, he continues working with no difficulties.

Case Study 2

Male, 40–49 age group, R&D manager, graduate school, married, diagnosed with depression, two leaves of absence

The subject is naturally meticulous and has a strong tendency toward perfectionism. During his first 20 years on the job, Japan's economy was thriving and the company's business results constantly improving, and despite an extremely busy schedule he worked with

great vigor and was steadily promoted. Even after promotion to a managerial position, he had no difficulties for several years, but when the company's business entered a new phase of development he began taking part in various projects and committees besides his regular work, and was not only busy but also frustrated that his work was not progressing as he hoped. He increasingly worked late or on weekends and began suffering from insomnia, and even when finally able to sleep he would wake up in the middle of the night and be unable to fall asleep again, reporting for work day after day in an exhausted state. In this condition he was unable to concentrate when sitting down at his desk and unable to collect his thoughts, and spent more time spacing out. His supervisor could not stand by and watch this, and recommended an examination at the Health Care Center. The Center referred him to the Department of Mental Health, where he was examined. The employee was diagnosed on the spot with depression requiring medical leave, and he began his first leave of absence.

During this leave of absence he took it easy at home, and after three months with the help of medication he was able to sleep normally. His condition improved and he was eager to go back to work, but after reinstatement he fell back into the same state as before and was unable to complete his duties, and was assigned to take another leave of absence. This time it was recognized that the employee's feelings of guilt toward the company and desire to make up for the time taken off had caused him to return to work too quickly the first time, and led to the reappearance of his symptoms. To prevent a reoccurrence, he was to be given thorough treatment and counseling during this next leave of absence.

Near the beginning of his second leave of absence, the employee was experiencing shock over having to take time off again, and he lost confidence and became extremely dejected. He was encouraged to rest as much as possible and counselors made efforts to listen patiently and acceptingly to his thoughts until his mood improved somewhat. Once his condition had stabilized, he was instructed to create a chart of his day-to-day routine, and it became clear that he was waking up each morning at 6:30 along with his wife, who went to work. This was around the same time he had woken up when he was working, but it was evident that after his wife left home he hardly went outdoors and spent much time spacing out in front of the TV in the living room. His only trips outdoors were to accompany his wife shopping on weekday evenings or on weekends. To improve matters, he was first of all encouraged to change clothes after waking up, and even if he stayed home, to move about by cleaning up after breakfast, doing other housework and so forth.

The next step was to do household tasks such as laundry and cleaning up during the morning, in place of his wife, and to take a walk for 30 minutes or so every day. At first he was resistant to the notion of going out by himself on weekdays, so he was asked to try taking a long way around when accompanying his wife on shopping trips on weekday evenings, first getting accustomed to taking walks before incorporating walks purely for the sake of walking into his daily routine. Eventually he began leaving the house at the time he would have left for work, and making the 40-minute trip to the library where he spent the morning reading, then spending the afternoon doing housework or other tasks. Once he had gotten

used to this routine and seemed to be nearly ready for reinstatement, he began heading for the nearest train station each morning before going to the library, as a sort of rehearsal for returning to work.

During this period, it became apparent in his counseling sessions that the employee was extremely serious, with strong tendencies toward perfectionism, and an overwhelming sense of obligation to complete job tasks himself and behave in a manner becoming a manager. Cognitive therapy was administered to help him adjust his perceptions. Finally he was diagnosed as eligible to return to work, and an application was made for convention of a reinstatement support panel. The panel shared a unanimous recognition that his dutiful and meticulous nature was accompanied by a rigidity of thought and inability to deal flexibly with a wide variety of work situations, causing him to take too much upon himself and fall into poor condition especially at the end of business periods or before deadlines. The panel discussed means of addressing these behavior patterns.

The conclusion reached was that the employee should be removed from actual managerial duties for the time being, and instead be assigned administrative work without deadlines. Information shared with the panel by his division's occupational health physicians was also conveyed effectively to his supervisors and the Human Resources Department, and an official reinstatement decision was made with HR taking his circumstances into account. After reinstatement, he was at first fatigued at the end of each day and was exhausted over the weekends, but he gradually readjusted to working. He continued undergoing examinations and counseling in the Mental Health Department, and had regular interviews with his division's occupational health physicians. A year later his prognosis was favorable and he continued to work without difficulties.

In this case the subject was capable of readjusting his lifestyle patterns autonomously, and was not enthused with the idea of visiting a Vocational Center, so instead a rehabilitation program was designed specifically for him and implemented successfully. This was a case where support was provided making effective use of factual evidence gathered during research studies.

This case indicates that prognoses are highly favorable, and long-term work continuation can be achieved, when the status of an employee on mental health-related leave is closely tracked, treatment and advice are tailored to his or her degree of recovery, and after reinstatement health care center staff, human resources personnel and supervisors share information with one another, allocate duties and provide support to the employee based on an understanding of his or her symptoms, personality traits, stance toward work, and behavior patterns. In these cases, specialist staff must share information from various standpoints and capitalize on their expertise in various areas so as to provide support to mental disorder sufferers with maximum effectiveness.

V. Steps Taken by the Company

In line with Japan's national Healthy Japan 21 public health campaign, Panasonic in 2001 launched a Healthy Panasonic 21 initiative entailing unified efforts by the company, labor union, and health insurance society. After 10 years, the program was further elaborated as the Healthy Panasonic 2018 initiative, which aims to achieve "a 100% healthy Panasonic Group" by the 100th anniversary of the company's foundation in 2018. Emphasis is placed on mental health, one of the five key areas of focus designated (mental health, neural and cardiac conditions, loss of stamina and musculoskeletal disorders, cancer, and dental health).[4]

Also, in April 2013 the company's medical leave and reinstatement program was updated in response to the growing number of employees taking repeated leaves of absence for mental health reasons. For employees who appear to be in poor mental states, reinstatement support teams are formed before they go on medical leave, as soon as symptoms become apparent. If employees do go on leave they are provided with support geared toward reinstatement throughout their absence, and further support following reinstatement to achieve smooth re-adaptation to the workplace and prevent reoccurrence of mental disorders. The entire Panasonic Group is making a concerted effort to minimize the number of mental health-related leaves of absence.

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Work-Life Balance in Japan: Outline of Policies, Legal Systems and Actual Situations*

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This paper presents the background, course and content of Japan's Work-Life Balance policies as a whole, as well as future challenges in the main individual policy areas of childcare leave, working hours, part-time labor and nursery care. The latter analysis includes brief comparisons with four other countries (UK, USA, Germany and France).

I. The Overall Picture of Work-Life Balance Policies in Japan and a Comparison with Other Countries

1. Contributing Factors and the Course of Progress in Japan

When Japan's total fertility rate reached a postwar low of 1.57 in 1989, it provided a major stimulus for promoting Work-Life Balance (WLB). For while the population replacement level in developed economies was around 2.08, in Japan it had already fallen below 2.0 since around the mid-1970s, when the birthrate was already in decline.[1]

As government trends in measures to tackle the declining birthrate, a document entitled the "Angel Plan" was jointly published by the Ministry of Education, Ministry of Health and Welfare, Ministry of Labour, and Ministry of Construction (as they were then called) in 1994. In the Plan, the declining birthrate is attributed to a progressive tendency toward later marriage and declining fertility among couples. As factors behind these, the Plan cites the advance of females into higher education,[2] progressive inroads into the workplace by females due to raised aspirations for self-realization,[3] and the greater diffi-

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* The content of this paper is based on Japan Institute for Labour Policy and Training (2012), *Waku Raifu Baransu Hikakuho Kenkyu (Saishu Hokokusho)* [Comparative law study on work-life balance (Final report)]," JILPT Research Report no.151, with statistical figures replaced by the latest data. The policies, legal systems and actual situations in other countries are taken from the Final Report and are not necessarily current at the time of writing. Owing to lack of space, they are only described simply and broadly in comparison with Japan. The opinions stated in this paper are those of the author and not necessarily of the organization to which the author belongs.

[1] In recent years, the new postwar low of 1.26 was recorded in 2005, and the rate was still trending low at 1.39 in 2011 (National Institute of Population and Social Security Research, "Population Statistics of Japan 2012").

[2] Female university graduates (including graduate school, junior college and technical college graduates) numbered around 1 million in 1968 but had increased to around 12 million in 2007 (Statistics Bureau, Ministry of Internal Affairs and Communications, "Employment Status Survey," each year).

[3] The number of females in employment grew from just under 5 million in 1953 to around 23.5 million in 2011 (Statistics Bureau, Ministry of Internal Affairs and Communications "Labour Force Survey," each year). Meanwhile, survey responses to the effect that "Even after having children, it would be preferable to keep working" have reached a record high of 47.5% as the average of both

culty of balancing child rearing with jobs,[4] among others. The Plan also includes the noteworthy statement that "Considering the importance of child rearing as a function of the family, child-rearing support measures in family life will be strengthened to ensure that this function is not lost. This will include creating an environment for creating a gender-equal society in which men and women will share housework and childcare."

After this, in 1997 the Council on Population Problems of the (then) Ministry of Health and Welfare published a report entitled "Basic Ideas on a Decrease in the Number of Children: The Society of Decreasing Population, Responsibility and Choices for the Future." The report stated clearly that the way forward in addressing future birthrate decline was to correct preconceptions of gender-based role divisions and the fixed employment practice of prioritizing work above all else. Reforming public awareness and corporate culture is also seen as a priority task in correcting these two fixed mindsets. In "Plus One Measures to Halt the Declining Birthrate" announced by the Ministry of Health, Labour and Welfare in 2002, this was taken a step further by proposing "a revision of working styles, including those of men." These policy trends led to the formulation of the Charter for Work-Life Balance in 2007 and the Action Policy for promoting it.

The government adopted the coherent approach of developing legislation to promote a balance between child-rearing with work and promoting a revision of working styles including those of men,[5] while reviewing corporate culture[6] and encouraging a reform of individual awareness.[7] In other words, WLB policies in Japan owe their origins to female labor problems and gender equality problems coupled with the problem of birthrate decline. Looking over the labor market as a whole, however, we also find single-parent family problems, elderly employment problems associated with the pension system, and youth employment problems. In view of this, the thrust of government measures is changing from the old "family friendly" policies focused on parents and families with children, to WLB in line

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genders (Cabinet Office, "Public Opinion Poll on a Gender-Equal Society [2012]").

[4] Combined with the above trends and awareness of gender-based role divisions (in the 1992 "Public Opinion Poll on a Gender-Equal Society," 60.1% of respondents agreed that "The husband should be the breadwinner and the wife should stay at home"), the female labor force participation rate in Japan is thought to have formed an M-shaped curve (unlike in other countries).

[5] On the subject of long working hours, for example, 4.22 million or about 13.7% of 30.83 million male workers actually in employment worked for 60 or more hours per week on average in 2012 (Statistics Bureau, Ministry of Internal Affairs and Communications, "Annual Report on the Labour Force Survey 2012").

[6] Companies also tend to take a positive stance on promoting WLB. For example, 73.4% of employers state that WLB support measures "are necessary in order to secure excellent human resources," and 71.3% that they "contribute to improved work motivation by employees" (NLI Research Institute [2005], "Survey on Work-Life Balance Support Measures and Corporate Performance").

[7] Prior research has already shown that a greater balance between work and personal life increases the proportion of people who approach their work positively (Specialist Committee on Work-Life Balance of the Council for Gender Equality [2009], "How Promotion of Work Life Balance can Help a Wide Variety of People Realize Their Full Abilities").

with the general lives of people as a whole and the life stages of the individual.[8]

The above can be gleaned from the "Report of the Study Council on Work-Life Balance" produced by the Ministry of Health, Labour and Welfare in 2004, and in particular, the "Charter for Work-Life Balance" formulated in 2007 and the "Action Policy" for promoting the same.

The Charter for Work-Life Balance and its Action Policy were drawn up in December 2007 by a "Council of Executives of Public and Private Sectors," comprising the relevant government ministers and representatives of the business community, labor organizations and local authorities, among others. After this, a new agreement was concluded between the top executives of government, labor and employers in June 2010, and this was promoted on a platform of neo-corporatism.

2. Response via Individual Law Policies

The Charter for Work-Life Balance highlights working hours as a primary focus for concrete measures. It sets out to reduce long working hours, encourage workers to take their annual paid leave and promote the use of flexible working hour systems. On the problem of working locations, meanwhile, it aims to promote teleworking and working at home, as well as mentioning female labor problems, prohibition of discrimination, fair conditions, and the introduction of balanced treatment systems to meet the increase in part-time workers. It also cites measures to develop infrastructure for child-rearing and nursery care, as well as income guarantees and reduced burdens of costs related to these, and measures to support the career development and employment of young people, the elderly and women.

So far, many of these concrete measures have been tackled by enacting or amending a number of laws, including the Labor Standards Act (LSA), the Act on Temporary Measures concerning the Promotion of Shorter Working Hours (Shorter Working Hours Promotion Act), the Act on Securing, etc. of Equal Opportunity and Treatment Between Men and Women in Employment, the Act on Improvement, etc. of Employment Management for Part-Time Workers (Part-Time Act) and the Act on the Welfare of Workers Who Take Care of Children or Other Family Members Including Child Care and Family Care Leave (Child Care and Family Care Leave Act). Other action has included expanding related policy measures beyond their existing scope.[9]

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[8] In a survey on WLB wishes and reality among married men and women in employment, the wish to "Balance work, housework and private life" occupied the highest ratio among women with 45.9%, but in reality 39.7% of women placed "Priority on work and housework." Among men, the wish to "Balance work, housework and private life" was greatest at 32.0%, but in reality 51.2% of men placed "Priority on work" (Cabinet Office [2006], "Outline of Result of Survey on Men's and Women's Working Styles and Work-Life Balance").

[9] As measures to halt the birthrate decline, the "Basic Act for Measures to Cope with Society with Declining Birthrate" and the "Act on Advancement of Measures to Support Raising Next-Generation Children" were enacted in 2003. The former provides the backbone for measures to halt birthrate decline, while the latter obliges companies with more than 100 employees to formulate "General Busi-

3. Characteristics of WLB in Japan

The general characteristics of Japan's WLB policies are that they have been triggered by measures to halt birthrate decline, and that a revision of working styles (mainly concerning female labor and equality problems but also including men) is being studied. Another characteristic is that policies have evolved while spreading outwards to embrace problems of the labor market as a whole, such as the working styles of the young and elderly and promoting their employment. What should be borne in mind is that the central and most important issues in Japan's WLB policies can be identified as the labor problems of parents (particularly women) with young children, and problems of gender equality from the viewpoint of revising working styles, including those of men.

4. Comparison with Other Countries[10]

As the impetus for introducing WLB policies, measures to halt birthrate decline feature heavily in Germany, France and Japan. In the UK and USA, by contrast, the aspect of labor market policies has had a more significant impact than birthrate decline. In either case, no great difference can be seen in the objectives of WLB policies, in the sense of helping to ensure national vitality, productivity, and international competitiveness over the medium to long term. Another point common to the countries studied is that there is perceived to be an awareness of gender-based role division. Moreover, although the female labor force participation rate in each country does not describe a large M-shaped curve as it does in Japan, women were initially targeted following medium- to long-term changes in national awareness and changes in family relations, family composition and formats (i.e. the traditional model of the male as breadwinner and the female as full-time housewife). On the other hand, other objectives such as revising working styles (including those of men), securing human resources in the labor market and preventing employee turnover can also be seen in the countries concerned.

As national initiatives based on this kind of impetus and background, France and the USA are promoting WLB without defining any clear policies, while, conversely, governments in Germany, the UK and Japan have set clear targets that combine measures to halt birthrate decline with the perspective of labor market policies. However, even France and the USA, where no clear policies have been defined, share the same objectives as the other countries in their WLB policies. Therefore, whether or not clear national policies are defined does not represent a substantially meaningful difference. An interesting point, meanwhile, is that in Germany, the UK and Japan, in particular, efforts are being made through partnership between the administration, labor organizations and employers.

As for the method of promoting actual WLB policies, all five countries are taking the

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ness Owner Action Plans." These two acts support the individual labor laws listed above. In advance of these, the Basic Act for Gender-Equal Society was enacted in 1999 as the basic law for promoting gender equality in society at large.

[10] WLB policies in other countries are summarized on pp.479–486 of the Final Report.

approach of enacting new laws or amending old ones. This point is thought to be strongly linked to the concept or rationale they have toward the economy and labor market when doing so. In the USA, the only law designed for WLB at federal level is the Family and Medical Leave Act, but in the other countries, various system amendments and new legislation related to WLB are being enacted.

Turning attention to the main areas of concern, importance can be found in the aspect of measures to halt birthrate decline. In all countries, however, a concern of particular importance is to balance work with life, home and family for working parents (including men) rearing the children who will carry the next generation.

Individual legal policies in this connection comprise systems of leave for working parents in the child-rearing phase, financial safeguards in that period, how to deal with daily working hours, and regulations on long working hours. Some legal systems also permit flexible working styles. While this includes flexibility of both working formats and working hours, they share the feature of permitting working styles not involving traditional or fixed employment formats and working hours. As well as these, another important measure involves preventing untraditional working styles from causing disadvantageous working conditions.

II. Outline and Reality of Related Legal Systems, Brief Comparative Study with Other Countries, and Issues Arising

1. Taking Childcare Leave

In Japan's system of childcare leave, leave can basically be taken until the child reaches one year of age, i.e. for 52 weeks (Child Care and Family Care Leave Act, Article 5 [1]). When both parents take child care leave, leave may be taken until the child reaches one year and two months of age (Article 9.2). When the child is not admitted to a nursery center, leave may be taken until the child reaches one year and six months of age (Article 5 [3] ii, Child Care and Family Care Leave Act Enforcement Regulations Article 4.2 i).[11] In this case, not only have legal measures been taken to make it easier for fathers to take childcare leave,[12] but a flexible system is also available depending on whether nursery centers can be used. Meanwhile, although applying for childcare leave is left to the choice of the worker (Article 5 [1]), an employer may not refuse a child care leave application received from a worker (Article 6 [1]).

In comparison to other countries, Japan's system is less generous than those in Germany and France (where leave can be taken for up to three years), but still allows a maxi-

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[11] In FY2012, employees in 77.9% of businesses took childcare leave (Ministry of Health, Labour and Welfare, "Outline of the FY2012 Basic Survey of Gender Equality in Employment Management," referred to below as "Employment Equality Survey").

[12] In FY2012, however, childcare leave was taken by 83.6% of mothers but only by 1.89% of fathers (Employment Equality Survey).

mum of 18 months. Moreover, leave allowed for fathers is longer than in France, where the period permitted is not only short (normal birth 11 days, multiple births 18 days) but also cannot be split into smaller portions, and in the UK, where paternal and parental leave are both very short (for the former, a maximum of 2 weeks; for the latter, 13 weeks until the child reaches the age of 5). Unlike France and the UK, moreover, the husband can take childcare leave during the wife's postnatal leave, and because a second childcare leave may be taken in this case, the Japanese system supports both men and women in balancing work with family life. In the USA, incidentally, the leave is very short at 12 weeks within a 12-month period. Finally, a feature found in all five countries is that workers may only obtain childcare leave if they apply for it, and whether to do so is left to the choice of the individual. In general, therefore, Japan's system of childcare leave is less generous than those of Germany and France but fuller than those of the UK and the USA, and shares the universal feature that the individual has the choice whether to take childcare leave or not.

Japan's Child Care and Family Care Leave Act stipulates that the employer may not refuse a worker's request for childcare leave. Considering this from the combined aspects of childcare leave and flexible working styles, Japan's is a "rigid system." It is the worker's right to take childcare leave, and the employer's duty to give it.[13]

As processes whereby workers may achieve WLB, such as adopting a flexible working style while bringing up children (on this point, see also II. 4 [2] c below), discussion, dialog and coordination in the company or workplace (below referred to collectively as "communication") are thought to be necessary in practice. When it comes to taking childcare leave, however, these processes are written neither in the Child Care and Family Care Leave Act nor in its guidelines. WLB and problems of balancing childcare with work differ from individual to individual; they are diverse, as is the nature of the workplaces where these individuals work. In that case, workplace communication itself is thought to be the important thing. However, compared to the legal systems in the three European countries, with their provision for flexible working styles, the Japanese system has not been designed to guarantee this point. Therefore, problems of promoting and ensuring communication between individual workers and management when the worker applies to take childcare leave remain unresolved in Japan's Child Care and Family Care Leave Act.[14]

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[13] In legal terms, a worker's right to apply for childcare leave is construed as a "formative right"; by applying for leave, the duty to provide labor is annulled (Nobuko Matsubara, *Yoku Wakaru Ikuji Kyugyoho no Jitsumu Kaisetsu* [Practical commentary on the Childcare Leave Act in plain language], [Tokyo: Institute of Labour Administration, 1992], 67). The employer may not countermand this legal effect by "refusing" the application (*ibid.,* 87).

[14] On the state of enforcement of the Child Care and Family Care Leave Act in FY2012, Equal Employment Offices processed 87,334 cases of consultation (employers 71.0%, workers 11.9%, others 17.1%). As the content of consultation, cases related to childcare leave in Article 5 were most numerous with 27.8% (16,706 cases), followed by those related to shortening of prescribed working hours and changes to start or finish times in Article 23 with 20.8% (12,522 cases), these two alone accounting for almost half of the total. Of the consultations from workers, the most numerous were those related to disadvantageous treatment in connection with taking childcare leave with 29.3%

2. Taking Childcare Leave and Financial Safeguards

Regarding income safeguards during childcare leave, in Germany 67% of the average wage is paid for 14 months, while in France the early childhood benefit program (PAJE) is paid from the first child onwards. France also gives relatively generous guarantees of income, etc., including a birth grant paid as a lump sum, plus a basic allowance lasting three years based on a disposable income for 90% of households, and a "Supplement for Free Choice of Working Time" continuing for six months after the completion of childbirth leave. In the UK, similarly, 90% of the average wage is paid for the first 6 weeks of maternity leave (seen as the equivalent of childcare leave), and a weekly payment equivalent to around 15,000 yen or 90% of the average wage, whichever is lower, for the next 33 weeks. For fathers, the length of paid leave is very short at 2 weeks, but the amount and percentage is the same as for statutory maternity benefit. However, since parental leave is regarded as unpaid in the UK, this cannot be described as a system that contributes to WLB. In the USA, there is no statutory provision for paid leave, and systems of income guarantees borne entirely by workers have merely been created in the form of family leave insurance in some states.

In Japan, 50% of the wage before taking leave is paid from employment insurance funds as childcare leave benefit (Employment Insurance Act Article 61.4; Supplementary Provisions Article 12 of the 2009 amendment).[15] Compared to the 67% for 14 months in Germany, and the wide-ranging system of generous income supplements and expense subsidies in France, the percentage paid in Japan feels on the low side. Compared to the UK, however, it seems about the same, and it is far better than in the USA. Since this point is linked to "continuing employment" as one of the objectives specified in the Child Care and Family Care Leave Act, the current rate of payment cannot generally be regarded as low.

The essence of the problem, rather, lies in gender-based wage disparity. In 2008, the gender wage gap in median earnings of full-time workers was 25.4% in Germany, 21.0% in the UK and 20.1% in the USA. The figure for France in 2007 was 12%. By contrast, the gap in Japan is 30.7%.[16] This level of disparity merely reduces household income to a corresponding degree (unless the wife earns around the same salary as her husband), making it financially impractical for couples to judge whether the husband should opt to take child-

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(1,392 cases), followed by those related to childcare leave itself with 22.9% (1,086 cases). On corrective guidance as separate from consultation, meanwhile, prefectural Equal Employment Offices processed a total of 23,380 cases. The content in descending order of frequency was childcare leave with 20.5% (4,796 cases), shortening of prescribed working hours and changes to start or finish times with 18.1% (4,231 cases), sick or injured child care leave with 16.9% (3,950 cases), restriction on work beyond statutory working hours with 15.7% (3,672 cases), and restriction on work beyond prescribed working hours with 11.7% (2,745 cases), among others (Employment Equality Survey).

[15] The current government has a plan to raise the percentage of childcare leave benefit for the first 6 months (mother and father individually) from 50% to 67% with the intention of improving the rate of taking childcare leave by husband.

[16] See Japan Institute for Labour Policy and Training, *Databook of International Labour Statistics* (Tokyo: Japan Institute for Labour Policy and Training, 2012), 173, table 5–11.

care leave. Therefore, in order to promote WLB, and particularly fair sharing of childcare between men and women or taking of childcare leave by men, eliminating gender-based wage disparity is an extremely important policy task.

3. Regulations on Long Working Hours

(1) Basic Approach to Long Working Hours

As the basic rule on working hours in Japan, LSA Article 32 (1) provides that "An employer shall not have a worker work more than 40 hours per week, excluding rest periods," and (2) of the same Article that "An employer shall not have a worker work more than 8 hours per day for each day of the week, excluding rest periods" (hereinafter "statutory working hours").

Of course, the basic rule on statutory working hours is not cast in stone. LSA Article 36 (1) broadly permits exceptions to statutory working hours, on condition that a written agreement with a majority labor union or a majority representative in the place of business is concluded[17] and notified to the authorities.[18, 19]

Rules on maximum working hours per day or per week have also been laid down in the other countries, but particularly in the three European countries, exceptions or exemptions based on agreements and individual contracts are essentially tolerated, and there is hardly any difference with Japan's regulations. Therefore, aside from the fact that an element of WLB in regulations on working hours can be faintly discerned in the reason for enactment of Germany's Working Hours Act (Arbeitszeitgesetz), generally speaking none of the countries has a clear element of WLB in its regulations on maximum working hours.[20]

(2) Searching for a New Approach to Long Working Hours

Compared to the three European countries, a regulation not found in Japan is that of

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[17] LSA Enforcement Ordinance Article 16 (1) provides that an agreement shall be made to clarify "specific reasons why workers are required to work overtime or on days off, the type of jobs in which such workers are to be engaged, the number of such workers, hours for which such workers may work overtime in a day and a fixed period exceeding a day, and days off on which such workers may work."

[18] Article 36 merely provides for non-violatory validity when setting exceptions to the statutory working hours in Article 32. However, court precedents and academic theories construe that justification must be provided in labor contracts (rules of employment) to enable employers actually to order workers to work outside statutory hours (see the *Hitachi Ltd. Musashi Factory Case* [First Petty Bench of the Supreme Court, November 28, 1991, 45 Minshu 1270; Kazuo Sugeno, *Rodoho* [dai 9 han] [Labor and employment law (9th Edition)] [Tokyo: Kobundo, 2010], 298 ff).

[19] LSA Article 36 (2) has been added from the 1998 amendment onwards. This gives the Minister of Health, Labour and Welfare the authority to prescribe "standards for limits on the extension of working hours set forth in the agreement set forth in the preceding paragraph" (Ministry of Labour Notification No.154 dated December 28, 1998; hereinafter "Limit Standards"). The Limit Standards prescribe periods of 15 hours for 1 week, 27 hours for 2 weeks, 43 hours for 4 weeks, 45 hours for 1 month, 81 hours for 2 months, 120 hours for 3 months, and 360 hours for 1 year (Limit Standards Article 3 [1]).

[20] In fact, as stated in Note 5 above, men in Japan are frequently observed to work long hours.

rest periods. Although limit standards have been prescribed in Japan as regulations on work beyond statutory working hours, the content of labor agreements specifying hours in excess of standards is not construed to be illegal or invalid.[21] Rather, based on the fact that they are standards grounded in legislation, there are plans for stronger administrative guidance on labor agreements aimed at normalizing overtime work.[22] On the premise of the legal structure whereby concluding and notifying a written agreement has non-violatory validity regarding the LSA basic rule on working hours, the looseness of overtime work order conditions stipulated in rules of employment or labor contracts has become one of the factors encouraging long working hours.[23]

From the standpoint of comparative law, the codification of rest periods should ideally be studied as an option for regulations on maximum working hours contributing to WLB.[24] As well as this, measures designed to make better use of the Shorter Working Hours Promotion Act should be studied. The Shorter Working Hours Promotion Act cites "realizing workers' healthy and fulfilling lives" as one of its objectives (Article 1), and stipulates that, as the duty of employers, efforts must be made to improve the setting of working hours, etc., in consideration of circumstances such as family responsibilities (Article 2 [2]). Employers must also endeavor to develop necessary systems, such as setting up Shorter Working Hours Promotion Committees with labor and management representatives as its members (Article 6). Moreover, the guidelines to the Shorter Working Hours Promotion Act illustrate specific measures based on voluntary efforts and mutual dialogue by labor and management. The Shorter Working Hours Promotion Act provides a starting point when companies feel it really necessary and want to promote WLB voluntarily, including the problem of working hours. The key to promoting WLB lies above all in efforts to improve culture and encourage understanding in individual workplaces; from the viewpoint of comparative law, it lies in communication between labor and management being incorporated in legislation related to WLB. As such, measures for making more effective use of the Shorter Working Hours Promotion Act should be studied with a view to promoting WLB.

4. Flexible Working Styles (Part-Time Labor, Flexible Working Hour Systems)

(1) Part-Time Labor

The Part-Time Act is designed for workers whose prescribed weekly working hours are shorter than those of ordinary workers employed at the same place of business (Article 2). As provisions governing the working conditions of these part-time workers, it includes

[21] See Note 18 above, Sugeno (2010, 296–97).

[22] See LSA Article 36 (4), and Note 18 above, Sugeno (2010, 296–97). Hajime Wada ("Rodo Jikan Kisei no Hoseisaku [Legal policy on working hour regulations]," *Journal of Labor Law*, no.110 [2007]: 72) argues in favor of making the Limit Standards a mandatory statute.

[23] See Atsuko Kajikawa, "Nippon no Rodo Jikan Kisei no Kadai [What needs to be done to the working time regulations in Japan?]," *The Japanese Journal of Labour Studies* 50, no. 6 (2008): 21.

[24] See Note 22 above, Wada (2007).

employers' obligation to indicate working conditions clearly (Article 6 [1]), the obligation to endeavor to hear opinions in the procedure for preparing rules of employment (Article 7), prohibition of discriminatory treatment of part-time workers deemed equivalent to ordinary workers (Article 8), the obligation to endeavor to decide wages with due consideration to balance (Article 9 [1]), the obligation to endeavor to decide the same wages as ordinary workers during a period meeting certain conditions (Article 9 [2]), the obligation to provide education and training to workers with equal job descriptions (Article 10 [1]), the obligation to endeavor to provide education and training with due consideration to balance (Article 10 [2]), the obligation to give due consideration regarding the use of welfare facilities (Article 11), the obligation to take measures for conversion to ordinary workers (Article 12), and the obligation to explain matters considered when deciding terms of treatment (Article 13).[25]

Amid the diversity of these regulations in both content and methods, the Part-Time Act is characterized in that it divides part-time workers into four types and provides different regulations for each. The first type is "all part-time workers." The second is "part-time workers with equal job description" (Article 10 [1]). The third is "part-time workers with equal job description + system and deployment of assignment as ordinary workers" (Article 9 [2]), and the fourth is "part-time workers with equal job description + system and deployment of assignment + labor contract essentially without a definite period" (Article 8). In other words, the applicable conditions increase in sequence from type 1 to type 4, while the scope of application becomes increasingly narrow.

In the three European countries, the basic rule of compensation for part-time workers in proportion to hours worked, etc., has been made statutory as domestic legislation based on EU directives. The phrases used can be rendered as "balanced treatment."

A point that attracted interest when the Part-Time Act was amended was the provision on prohibiting discriminatory treatment in Article 8. Focusing just on the meaning of prohibiting discriminatory treatment in this provision, it would appear not to differ from regulations in the three European countries. But because Article 8 has an extremely narrow scope of application, there is little substantial meaning in creating this regulation. Therefore, a relaxation of the conditions ought to be considered, based on continuous and careful investigation of the actual situations facing part-time workers.[26]

The point about the narrow scope of application could equally be applied to the pro-

[25] On the state of enforcement of the Part-Time Act, in FY2012 Equal Employment Offices processed 7,485 cases of consultation, of which those from employers accounted for 49.2% (3,685 cases), those from workers 19.0% (1,419 cases), and others 31.8% (2,381 cases). As a breakdown of the content of consultations from workers, the most numerous were related to annual leave, dismissal, social security, etc., with 33.5% (476 cases), followed by issuance of documents on labor conditions with 19.1% (271 cases), conversion to ordinary workers with 13.0% (184 cases), and explanation on terms of treatment with 11.2% (159 cases), in that order (Employment Equality Survey).

[26] In fact, only 2.5% of part-time workers meet the requirements in Article 8 (Ministry of Health, Labour and Welfare, "Summary Report of the General Survey on Part-time Workers 2011 [Business Establishment Survey]").

vision in Article 9 (2) of the Part-Time Act. This provides that employers must endeavor to decide wages for part-time workers whose system and deployment of assignment are the same as those of ordinary workers during a specific period of time, using the same method as applied to said ordinary workers during that period. In that Article 9 (2) involves an obligation to "endeavor," it would suffice simply to make the equality of the job description a requisite condition.[27]

Again, on the provision for obligatory efforts in Article 9 of the Part-Time Act, it could be construed that efforts have been made when the employer takes steps for communication between labor and management. From the standpoint of comparative law, labor-management communication (the obligation of sincere discussion) is extremely important as a legal policy related to WLB. Moreover, just as in the other countries, part-time workers in Japan include a high proportion of females; there is also an abiding awareness of gender-based role division, and females bear responsibility for actually raising children owing to gender-based wage disparity. In light of this situation, law policies that facilitate realistic efforts in companies and workplaces should be developed in order to raise the productivity of female workers, together with that of companies and the nation as a whole.[28]

(2) Flexible Working Hour Systems

a. Irregular Working Hour Systems

There are three types of irregular working hour system, based on units of one month (LSA Article 32.2), one year (LSA Article 32.4), and one week (LSA Article 32.5). Although irregular systems are based on different periods for each of these, all of them require labor agreements to be concluded with a majority union or majority representative in the place of business, or rules of employment or others equivalent to these to be determined (in the case of irregular systems based on units of 1 month). These labor agreements are to be notified to the Labor Standards Inspection Office (LSA Enforcement Regulations Article 12.2.2 [2], Article 12.4 [6], Article 12.5 [4]).

These irregular working hour systems are significant in that, as long as weekly working hours averaged from actual hours worked within a fixed period do not exceed 40 hours, they are not treated as exceeding statutory working hours. This is so in spite of the rule on statutory working hours in LSA Article 32 (for irregular working hour systems based on weekly units, "the employer may have workers work for up to ten hours per day"; LSA Article 32.5 [1]). These systems can also been seen as significant in that, while increased

[27] See Michiyo Morozumi, "Kinto Taigu to Sabetsu Kinshi [Balanced treatment and bans on discrimination]," *The Japanese Journal of Labour Studies* 50, no. 7 (2008): 52.

[28] Although 20.4% of part-time workers had requested explanation of their terms of treatment, 21.4% of these were "Unconvinced" and 8.0% "Received no explanation." This means that, in around 30% of cases, labor-management communication has not been successful even though explanation has been sought (Ministry of Health, Labour and Welfare, "Summary Report of the General Survey on Part-time Workers 2011 [Individual Worker Survey]").

wages for overtime work are treated as arising only when working hours exceed both statutory working hours and the working hours stipulated in labor agreements, increased wages for overtime work only arise when working hours exceed the statutory working hours stipulated in LSA Article 32, even if there are days or weeks when working hours are fewer than statutory working hours. However, irregular working hour systems cannot be regarded as diffused to any significant degree.[29]

b. Flextime Systems

Flextime systems (LSA Article 32.3) give workers discretion over their hours of starting and finishing work, on condition that they provide a certain number of labor hours within a certain period of time (the settlement period). That is, they can start and finish work freely within time bands of several hours in the morning and afternoon. Of course, there are cases where a "core time band" of several hours either side of noon is set, when labor must always be provided. On the other hand, some companies set "super-flextime systems" with no specified core time. Overtime work in flextime systems consists of hours that exceed the number of statutory working hours during the period in question.

The requirements for introducing flextime systems are that the rules of employment should state that the system will be introduced and a majority labor agreement should be entered. However, there is no requirement for notifying the Labour Standards Inspection Office. The level of introduction and application of flextime systems also leaves much to be desired.[30]

c. Comparison with Other Countries

In Germany, flextime systems based on labor agreements are expected to contribute to WLB, in the sense of giving workers free discretion regarding the allocation of working hours. The working hour account system (with "credits" received for overtime work and "debits" cashed in when going home early) makes it possible to organize flexible working hours, and could therefore contribute to WLB. Flextime systems based on labor agreements and the like may also be introduced in France. However, these are thought to facilitate allocation of working hours to suit individual needs, in that the use of such systems is left to the free choice of workers. A distinctive situation is found in the UK, where the use of flexible employment systems is enshrined in law as a right of application. This is highly noteworthy in that it facilitates diverse allocations of working hours and methods of employment (on

[29] In FY2012, irregular systems based on yearly units had been introduced by 33.3% of companies, and those based on monthly units by 15.8%. The ratio of application to workers was 22.8% in the case of yearly systems and 17.8% for monthly systems (Ministry of Health, Labour and Welfare, "Summary Report of the General Survey on Working Conditions 2012"; hereinafter "General Survey on Working Conditions").

[30] In FY2012, flextime systems had been introduced by 5.2% of companies and applied to 7.8% of workers (General Survey on Working Conditions).

this point, see also II.1 above).

Japan's irregular working hour systems cannot generally be said to contribute to WLB, because the length of working hours differs between busy and off-peak periods. However, they cannot be said not to contribute to WLB at all, in the sense that the relatively long working hours during busy periods can be planned for in advance. In some ways, flextime systems cannot be seen as necessarily contributing to WLB, as they only offer freedom in the time of starting and finishing work, and the prescribed total working hours must be worked within the settlement period. Nevertheless, they can be beneficial for those whose needs they meet, in that they can ensure the flexibility of working hour allocation. If flextime systems could be used in combination with part-time work, they would make a great contribution to WLB. In that case, Japan's flexible working hour system would differ little from those of the three European countries.

However, Japan's flexible working hour system was codified in a form that meets the needs of companies, in response to the need for a national policy on working hour reduction and the increasing service orientation of the economy; its purpose was to ensure the flexibility of business management. In that case, Japan's system offers flexibility for companies but not for workers. Any plan to promote WLB by using flexible working hour systems must at least involve spreading flexible working hour systems in a form that contributes to promoting WLB and taking steps to encourage the use of them. In other words, an important issue is how to ensure the flexibility not of "ways of employing workers" but of "ways of working." Again, because Japan's flexible working hour system is prescribed by the LSA, a "rigid" mandatory law with penalties for violation, it does not entail the concept of WLB. The key lies in how this point will be overcome. If this proves impossible, making effective use of the Shorter Working Hours Promotion Act should be studied.

5. Nursery Care[31, 32]

(1) Approved (Public, Private) Nursery Centers

The term "nursery center" corresponds to "child welfare institution" in Article 7 (1) of the Child Welfare Act (CWA). A nursery center is "a facility intended for providing daycare to infants or toddlers lacking daycare based on entrustment from their guardians on a

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[31] On the current state of legal policies governing nursery care services and tasks for the future, see Yukiyo Hashizume, "Hoiku Nizu no Tayoka to Hoiku Sabisu [Nursery care services and the diversification of nursery care needs]," *Jurist*, no. 1383 (2009):29–34.

[32] Systems and facilities of nursery care for infants (preschool children) include the approved nursery centers (public and private nurseries), certified nursery centers and non-approved nursery care facilities mentioned below, as well as day care by kindergartens, nursery rooms, home-based nursery care ("nursery care mamas"), and *nintei kodomoen* (certified nursery schools, jointly supervised by the Ministry of Education, Culture, Sports, Science and Technology and the Ministry of Health, Labour and Welfare), and also after-school kids' clubs for elementary school infants. In recent times, the Ministry of Health, Labour and Welfare has been vigorously promoting measures for nursery care under the heading "Plan to Accelerate the Zero Childcare Waiting List Project."

daily basis" (CWA Article 39 [1]).

"In the case where a guardian's working or illness or any other reasons prescribed by a Municipal Ordinance in accordance with the standards specified by a Cabinet Order causes lack in daycare of an infant, a toddler… whose custody must be taken by the guardian, a municipal government (*author's note: includes special wards; the same applies below*) shall, when the guardian applies, provide daycare to those children" (CWA Article 24 [1]). Again, "A person other than the national, prefectural and municipal governments may establish a child welfare institution, pursuant to the provisions of Ordinances of the Ministry of Health, Labour and Welfare, with the prefectural governor's approval" (CWA Article 35 [4]). As such, bodies authorized to establish and operate nursery centers are taken to consist of public nursery centers and private approved nursery centers, and a condition for admission appears to be that "a guardian's working" or other reasons cause a "lack in daycare" for their infants. In that case, nursery centers may be understood as existing for the WLB of working parents with young children.

Nursery care hours are from 07:15 to 18:15 in one municipal nursery center, but extended nursery care may be provided from 18:15 to 19:15. The opening hours of private nursery centers are mostly in line with those of municipal nursery centers, but some centers offer extended nursery care until 20:15 or 22:15. A 24-hour service is even available in some nursery centers.

Nursery care fees, in both public and private centers, are based on the age of the child entrusted to nursery care and the parental income (amounts of income tax and residents' tax). The fees may be reduced or exempted altogether, however, depending on the family's financial circumstances.

As of April 2013,[33] there were 24,038 nursery centers with an admission capacity of 2,288,819 and actually providing care for 2,219,581 children in Japan. All of these figures are the highest on record, and infrastructure development for nursery centers has also become increasingly enhanced as the years have gone by.

There is still a long waiting list of 22,741 children, however, despite annual decreases since the peak in 2010. The circumstances of each local authority or other locality are thought to lie behind this. But at the same time, there is also thought to be some kind of mismatch between parents' nursery care needs and efforts by national, prefectural and municipal governments.[34] The waiting list ratio for younger infants aged 0 to 2 is 82.0%, far higher than that for toddlers aged 3 or older at 18.0%; the waiting list ratio for 1- and

[33] Ministry of Health, Labour and Welfare (2013), "Summary of the Situation Concerning Nursery Centers (April 1st, 2013)."

[34] According to prior research, analysis related to continued employment by women suggests that "continued employment is difficult unless working hours, after returning to work, fit the hours of childcare services" (Japan Institute for Labour Policy and Training [2010], *Josei no Hatarakikata to Shussan Ikujiki no Shugyo Keizoku* [Women's ways of working and job continuation at the stage of childbirth/childcare], JILPT Research Report no. 122, 43 ff).

2-year-olds, in particular, is 68.7%. From this, one would infer that parents face major problems in admitting children to nursery centers on completing childcare leave.

(2) Certified Nursery Centers

Certified nursery centers provide nursery care services in line with the nursery care needs of parents with young children. Local authorities set their own standards for establishment, etc., and significant participation by private businesses is permitted. Since these centers are not grounded in legislation such as the Child Welfare Act, in legal terms they are classified as non-approved nursery care facilities.

In the case of Tokyo, where the waiting list is the longest in the whole of Japan (8,117 children), centers are divided into types A and B depending on whether established by private businesses (type A) or by individuals (type B), the ages of children admitted (type A: 0–5 years, type B: 0–2 years), and the number of children admitted (type A: 20–120, type B: 6–29).

Standards on the management and operation of businesses and their facilities are the same for both type A and type B. Also, in both type A and type B, the facility standards and employees (nursery care workers) are supposed to be the same as (or compliant with) the standards applied to approved nursery centers. Certified nursery centers must also undergo on-site inspections of their compliance with standards at least once a year (Child Welfare Act Enforcement Regulations Article 38).

Opening hours are basically set at 13 hours, and although fees can be set freely, there is an upper limit of 80,000 yen up to age 3 and 77,000 yen from age 3 onwards when used for 220 hours or more in one month.

According to the Tokyo Metropolitan Government's Bureau of Social Welfare and Public Health, there were 613 type A centers and 86 type B centers as of September 1st, 2013, totaling 699 in all. The 613 type A centers had a total intake of 21,865 children and the type B centers had 1,781, while nursery care hours for both types were generally from 7 in the morning until around 9 at night.

(3) Non-Approved Nursery Care Facilities

"Non-approved nursery care facilities" is a general term referring to nursery care facilities (including certified nursery centers) not approved by prefectural governors or others based on the Child Welfare Act (hence non-approved).

These centers are established and operated by diverse bodies, and various aspects of nursery care including the age of infants admitted, nursery care hours and fees are left to the free discretion of those bodies. Consequently, night-time nursery care after 8pm, overnight nursery care, and other services are sometimes provided in exchange for relatively expensive nursery care fees. The Tokyo Metropolitan Government has stipulated supervisory guidelines and standards for the establishment and operation of non-approved nursery care facilities. To enforce these, supervision by on-site inspection is sometimes carried out.

As of March 2012, there were 7,739 non-approved facilities throughout Japan, an increase of 2.1% from the previous year.[35] Conversely, the number of children admitted fell by 0.6% from the previous year to 184,959. The rise in needs for non-approved nursery care facilities is thought to have peaked with the enhancement of public nursery care services (such as approved or certified nursery centers). Of course, in terms of nursery care hours, there must still be a demand for the use of non-approved nursery care facilities in time bands not covered by public nursery care services. However, since around half of these nursery centers are not compliant with standards, improving quality is a challenge for the future.

(4) Systems of Nursery Care for Company Employees

According to a previous survey,[36] as one aspect of WLB measures being tackled by employers, 7.5% of companies "have established and operate nurseries within the place of business" for regular employees, 9.8% "assist with the cost of childcare," and 4.5% "provide information on external childcare services." These are significantly lower than the ratios of companies introducing systems of leave, holidays and working hours based on law. Companies may be hesitating to develop systems of services related to nursery care for their employees, due to the cost involved in developing infrastructure or gathering data to provide information on actual nursery care services.

Nevertheless, in 2011 there were 4,165 nursery care facilities attended by 61,000 children within places of business, both figures representing new record highs. This would appear to reflect progress in the policy of promoting WLB at national level and promoting measures to support next-generation upbringing, as well as moves to secure human resources, improve productivity and/or increase work efficiency in individual companies, among other factors. Moreover, grant payments and preferential tax measures must also be having an effect.

(5) Comparison with Other Countries

Firstly, like the other countries, Japan has developed very diverse systems (although Japan has no system of free early-years education similar to those in France and the UK). Numbers of approved nursery centers, certified nursery centers, non-approved nursery center (including nursery care facilities within companies) and others have increased since the various programs were first started, and are gradually catching up with needs on the demand side. However, there is still a mismatch between supply and demand in urban areas, with many infants still waiting for places. In future, therefore, a challenge will be how to elimi-

[35] For details, see Ministry of Health, Labour and Welfare (2013), "Summary on the Status of Non-Approved Nursery Care Facilities in FY2011."

[36] Director General for Policies on Cohesive Society, Cabinet Office (2006), "Survey Report on Childcare Support by Companies and the Effects of Its Introduction."

nate the problem of waiting lists in urban areas while maintaining and evolving diverse systems of nursery care. The causes behind the mismatch will also need to be investigated in detail.

The second point concerns the relationship between parents' burdens of nursery care costs and their employment activity. Particularly in France, support for the WLB of mothers with young children is cited as the purpose behind introducing PAJE, with the intention of encouraging female workers to re-enter the labor market. In some countries, systems of nursery care overlap with free early-years education for infants. If working full-time means paying for nursery care, this might cause a tendency, particularly among low-wage or poorer families in the country concerned, to use free early-years education as a substitute for nursery care. This would then encourage parents to work part-time instead of full-time, thus restricting their employment (i.e. low-wage or poorer families would remain as such).

In Japan, where nursery care costs are based on income and some local authorities set upper limits for non-approved nursery care facilities, measures to avoid such restriction of employment could be regarded as established. Particularly in the case of non-approved nursery care facilities, however, a basic assumption is that the parties involved are free to set their own fees, etc., in light of the trend toward deregulation of welfare policies and market liberalization. Thus, study should be made of steps to decide detailed standards and reduce cost burdens, while safeguarding the freedom of working parents with children to choose between jobs or raising children, or both, as in the case of PAJE in France.

Thirdly, there is the issue of financial assistance to companies and organizations implementing nursery care. In the European countries, particularly Germany and France, local authorities and other bodies responsible for nursery care are incentivized to establish and operate nursery care facilities through subsidies or preferential tax measures. Financial assistance is also provided in this form in Japan. The content of this support should be reconsidered to further enhance diverse nursery care facilities.

On the subject of corporate nursery care systems, nursery care within the place of business is probably useful in some cases and not in others. The companies, at least, need to ascertain their employees' nursery care needs, as well as other (internal) systems related to WLB, by communicating with them individually. Having done so, steps will need to be taken for childcare support measures, such as nursery care tailored to the situation of the establishment or company in question. At national level, systems to ensure promotion of this kind of communication, including grants and other financial incentives, will need to be studied.

JILPT Research Activities

International Workshop

The Japan Institute for Labour Policy and Training (JILPT), the Korea Labor Institute (KLI), and the Chinese Academy of Labour and Social Security (CALSS) held a research forum on the theme "Women's Employment: Current Situation and Policy Tasks" on November 1, 2013 in Jeju, Korea. The three institutes hold a forum with a common theme once every year. In the forum, they present their research results with the aim of promoting mutual understanding among the three countries and raising the standards of research. This was the eleventh forum held with the collaboration of the three research institutes. The Japanese text of research papers presented at the forum will be uploaded on the JILPT website (http://www.jil.go.jp/institute/kokusai/index.htm).

JILPT

Singou Ikeda, Vice Senior Researcher, *Women's Employment and Issues of Work-life Balance Support*

Noboru Ogino, Director of Research and Statistical Information Analysis Department, *Current Situation of Female Part-time Workers in Japan*

KLI

Jae-Ho Keum, Senior Research Fellow, *Current Situation and Policy Tasks of Women's Employment in Korea*

Bog-Soon Kim, Senior Researcher, *Characteristics and Job Quality of Female Part-Time Work in Korea*

CALSS

Yanbin Liu, President, *Current Situation and Countermeasures of Women's Employment in China*

Jia Cao, Assistant Researcher, Division of Employment Research, Institute for Labor Studies, Ministry of Human Resources and Social Security, *Changes of Female Labor Force Participation Rate and Their Impacts on Employment in China*

Research Reports

The findings of research activities undertaken by JILPT are compiled into Research Reports in Japanese. Below is a list of Research Reports published since September 2013. The complete Japanese text of these reports can be accessed via the JILPT website (http://www.jil.go.jp/institute/pamphlet/). English summaries of selected reports are also available on the JILPT website (http://www.jil.go.jp/english/reports/jilpt_01.html).

Research Reports

No.161 Transition in the Diversification of Employment—Part III: Based on a Special Tabulation of the MHLW "General Survey on Diversified Types of Employment" 2003/2007/2010 (November 2013)

Research Material Series

No.128 The State of Use of Employment Support Measures for Young People in SMEs (Young Employees Interview Survey Report) (November 2013)

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