

Article

A Case Study on Overwork-related Mental Disorders in Japan: Focusing on Young Employees

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I. Introduction

Death from overwork (*karōshi*) has been seen as a serious social problem in Japan. *Karōshi* refers to cases in which cerebrovascular or cardiovascular diseases occur as a result of work and lead to death. In case of “overwork-related disorders” in the forms of cerebrovascular and cardiovascular diseases and mental disorders, including *karōshi*, expenses relating to treatment, benefits for absence from work, and compensation pension and lump-sum for injury, diseases, disability and surviving family are covered by the industrial accident compensation insurance system. Over the past decade or so, the yearly number of claimed industrial accident compensation cases for work-caused cerebrovascular or cardiovascular diseases has ranged from the upper 700s to the upper 800s. The yearly number of compensated cases has ranged from the 200 level to the lower 300s. The number of deaths among compensated cases hovers around 100 per year. The number of both claimed and compensated cases remain high.¹

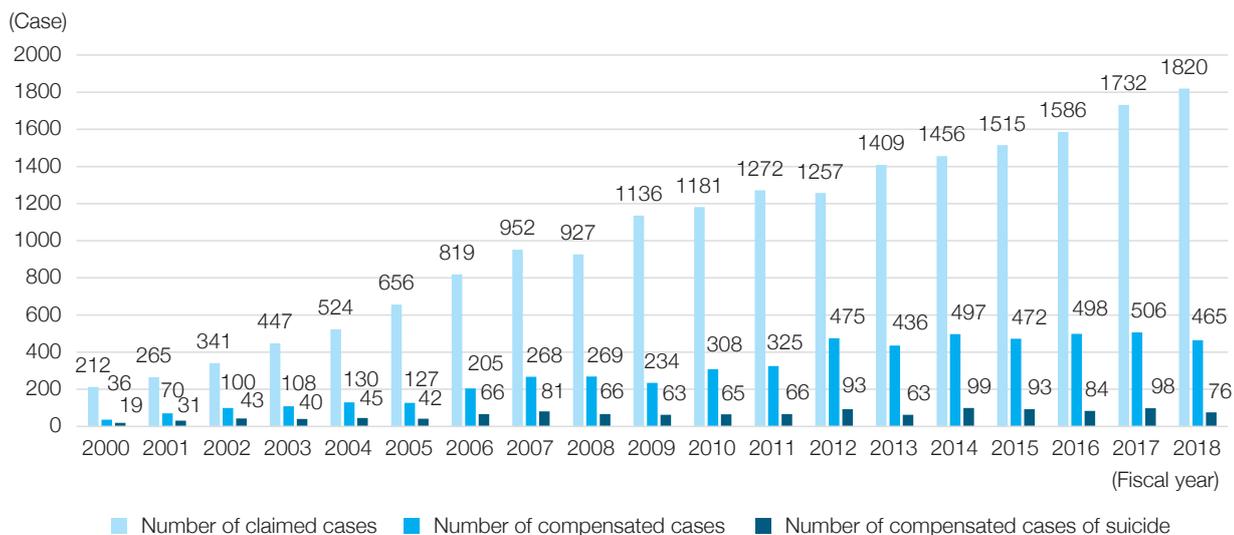
Meanwhile, the occurrence of work-related mental disorders has become an increasingly important topic of social issues in recent years. It has become generally accepted through court decisions concerning overwork-related suicides and other developments since the mid-1990s that workers who are exposed to intense stress in their work can experience depression.² The number of claimed cases for mental disorders continues to rise, exceeding 1,000 in FY2009 and reaching 1,820 in FY2018 (Figure 1). In FY2018, the number of compensated cases for mental disorders, including cases that did

not result in suicide, reached 465. This number has hovered around the 500 mark since FY2012. The number of compensated cases in which a person suffered a mental disorder caused by overwork and committed suicide has ranged between 80 and 100 per year.



Then, what kinds of cases have been compensated as industrial accidents involving a work-caused mental disorder? Looking at statistical trends, some attributes of the sufferers of mental disorders (hereinafter, the sufferers) are in common with cerebrovascular and cardiovascular diseases, while other attributes differ. First, there is a difference in core age groups. For cerebrovascular and cardiovascular diseases, compensated cases in the 50–59 age group are the most numerous, followed by those in the 40–49 age group. Meanwhile, a characteristic of mental disorders is that most compensated cases are between the ages of 20 and 49.³

There is a slight difference in terms of core industrial categories. For cerebrovascular and cardiovascular diseases, a typical example of categories having large numbers of claimed and compensated cases is “transport and postal activities” (and, within that category, “truck drivers”). For mental disorders, “manufacturing” has the most compensated cases, followed by “wholesale and retail trade.” However, when compensated cases are considered in terms of percentage of the employed population, the percentages of industrial accident cases are higher for “information and communications,” “transport and postal activities,”



Source: The Ministry of Health, Labour and Welfare (2019).

Figure 1. Number of claimed and compensated cases for overwork-related mental disorders

and “scientific research, professional and technical services.”⁴

Looking at the names of disorders concerning mental disorder recognition, among living cases except for suicide cases, the highest percentage belongs to “depressive episode,” followed by “adjustment disorder” and “post-traumatic stress disorder.” Differences between males and females can be seen here. “Depressive episode” and “adjustment disorder” have relatively high percentages among males, while “post-traumatic stress disorder” has a relatively high percentage among females.⁵

The above provides a description of statistical trends. However, there remain several questions that statistical trends don’t fully answer. For example, how did work-related events cause intense stress leading to mental disorders? Why had the sufferers of the mental disorders worked until they lost their health? To what extent had coworkers noticed changes in the sufferers’ health? To answer such questions, it is necessary to study cases in detail. With these questions in mind, this study examines the nature of work-related stress and the process of mental disorder’s onset by conducting case studies. The following section explains the study’s points of focus while presenting Japan’s recognition criteria of

industrial accidents.

II. Recognition criteria for mental disorders as industrial accidents

We first examine the recognition criteria for mental disorders as industrial accidents in order to study what constitutes overwork as it relates to mental disorder’s onset. Japan’s industrial accident compensation insurance system recognizes mental disorders that arise from excessive work-caused stress based on certain criteria and covers expenses relating to their treatment, lost work time, and the like.⁶ According to the recognition criteria for mental disorders, an assessment period is set for six months prior to the disorder’s onset, and whether or not the disorder will be recognized is determined through a comprehensive assessment that considers the degree of work-related stress and non-work factors. The work-related stress satisfies the recognition requirement of an industrial accident in the following cases: 1) a case in which the work-related stress involves a “special event” recognized to involve intense stress, namely ① an “extremely psychologically stressful event” such as a life-threatening work-related illness or injury or ② “extremely long working hours,” i.e., more than

160 hours of overtime per month prior to the onset of mental disorders, or, when case 1) is not applicable, 2) a case in which work-related stress is judged as “strong” through a comprehensive evaluation based on the factual presence or absence of 36 “specific work-related adverse events” that are assessed as “strong,” “medium,” or “weak” in terms of the intensity of the stress.

The 36 “specific work-related adverse events” can be classified into the following four categories according to the kind of stress involved:⁷ “long working hours,” “injuries and disasters,” “interpersonal conflict,” and “other events.” It should be noted that cases relating to long working hours make up a large percentage of industrial accidents.

III. Detailed analysis of overwork-related cases

Based on these recognition criteria for mental disorders, we conducted case studies to examine in detail the nature of the stress discerned by concerned parties—namely, the sufferer and people around him/her—and the process through which the sufferer lost his or her health.⁸ We focused this study on cases involving the so-called “young” age group of people who were 39 years old or younger at the time of their disorder’s onset.⁹ This is because, unlike those involving cerebrovascular and cardiovascular diseases, industrial accidents involving mental disorders are also widely found among younger workers. Additionally, we limited the studies to living cases in order to study the sufferers’ stress awareness on the process of becoming ill. In these cases, we conducted examinations to determine which events produced stress and the mental disorders that occurred as a result.

As was mentioned in Section II, not a few industrial accidents involving mental disorders are cases in which the disorder’s onset arose from an injury/disaster or interpersonal conflict. In this study, however, we examine cases where the stress was primarily attributable to excess in work quantity and quality, such as long working hours.

Our study method involved accessing materials describing the work-related stress for each case and

then analyzing the content of these descriptions. Specifically, we used “investigation report” prepared by the Labor Standards Inspection Offices for use in making decisions on the granting of industrial accident recognition as well as related materials that served as the basis for those investigation reports as study materials.¹⁰ The investigation reports contain the overall judgment concerning industrial accident recognition as well as such items as “presence or absence of work-related stress and its description” and “observed mental and physical symptoms.” They are written in a manner that compares the sufferer’s statements with investigation findings. Investigation findings are based on objective materials (daily work reports, etc.) as well as interviews with the sufferer’s family members, workplace supervisors and colleagues, etc. regarding the status of overwork and health hazard of the sufferer. In this study, we examine cases that were recognized as industrial accidents between January 2010 and March 2015 using these materials.

We employed a method whereby we clarified which events created intense stress leading to mental disorders based on the concerned parties’ awareness. First, we examine what the sufferer perceived as stress at that time. At the same time, we examine the awareness of people around the sufferer—particularly workplace supervisors and colleagues—during the process of the onset of that disorder and compare it with the sufferer’s awareness. In comparing both, some cases can be observed in which differences in awareness exist, such as when the sufferer feels that he has been given an “impossible quota” but his colleagues say that “it was just a target which does not involve penalties.” This kind of “awareness gap” can be a factor that made it difficult to prevent the onset of mental disorders causing industrial accidents.

IV. Results

In this study, we analyzed what constituted overwork as it related to the onset of mental disorders and the process by which it led to mental disorders based on concerned parties’ awareness, including gaps in awareness among them. We found that, even

in the cases which are recognized largely based on long working hours, there are various elements which have caused the sufferer to feel stress in the process of health deterioration under the environment of long working hours. Here, we present and examine three typical cases¹¹ (Table 1). These three types were extracted as being conspicuous among younger age groups based on the stress awareness of sufferers.

First, there are cases in which mental health becomes impaired, primarily early in a career,

amid strong realization of a job's severity and the difficulty of adapting to a workplace (Case 1). It is pointed out that the sufferers are aware of their heavy workloads, the lack of sleep caused by long working hours, and the difficulty of adapting to the rhythm of their job. It is sometimes noted that severe scolding or instruction from a supervisor against a backdrop of work mistakes also became a major source of stress. Although these events alone can be seen as common challenges in the process of adapting to a

Table 1. Cases recognized as overwork-related mental disorders (industrial accidents)

Case No.	Sex	Age group	Industry and occupation	Years of continuous service	Disorder (ICD-10 classification)
1	Male	20-29	Accommodations, eating and drinking services Service worker	1 to 3 years	Adjustment disorder (F43.2)
Case summary: The worker was an apprentice chef. After transferring to a new restaurant (job transfer involving change of residence), he constantly worked long hours from eight or nine o'clock in the morning until midnight. He also got sharp reproaches from the chef in charge of his training (e.g., "Why can't you do this right?"), was blamed for his mistakes, and physically struck. He became afraid to go to work in the morning, felt completely hopeless, and jumped from his dormitory (attempted suicide). According to the restaurant's manager, the chef in charge of his training was a tough instructor but he saw this as the instructor's earnest desire to make the worker a full-fledged chef as soon as possible.					
2	Female	30-39	Real estate and goods rental and leasing Sales worker	4 to 9 years	Other anxiety disorders (F41)
Case summary: The worker was a real estate salesperson. She had to prepare materials on days off and at home. She worked long hours without taking holidays. She felt stress from an excessive quota and from being demeaned by her supervisor. She was examined for stomach pains and other problems. According to her company, contrary to her claim, she had not been instructed to work on days off or to take work home. Additionally, although there were sales targets, they were not high and she was not scolded or penalized even if she did not make them. Furthermore, although the supervisor scolded her in strong language, the supervisor did the same to other employees as well.					
3	Male	30-39	Manufacturing Manufacturing process worker	At least 10 years	Depressive episode (F32)
Case summary: The worker was a section chief in charge of production management. After dealing with complaints from customers was added to his original duties, he worked from early in the morning until late at night handling frequent telephone calls, etc. He appeared to have a more than extremely heavy workload even to his coworkers. He became unable to control his facial expressions and was aware that he had lost energy. His colleagues also noticed his change in health (e.g., he had a strange look and did not respond to jokes). He felt he had reached his limit and reported this to his supervisor, whereupon he received a medical examination and took leave from work. According to his supervisor and colleagues, he had an earnest personality and probably became overwhelmed by the task of responding to complaints.					

Source: The Japan Institute for Labour Policy and Training (2020).

company or job and becoming fully competent, the extraordinarily long working hours which constitute the background should not be overlooked. In the case presented, overtime work that greatly exceeded 100 hours per month is confirmed during the four months prior to the disorder's onset. It is safe to say that, in a work environment where extremely harsh working styles are considered to be normal, supervisors and colleagues tend not to be concerned about how stressful the sufferer is in such an environment and thus problems are overlooked.¹²

Second, there are cases in which people worked up to the point of impairing their health because they had a strong sense of work responsibility or obligation to achieve quotas (Case 2). The case presented also involved significantly long working hours, with overtime work exceeding 80 hours per month for the six months prior to the disorder's onset and exceeding 100 hours per month in the three months prior to onset being confirmed. This kind of case is typically seen among chiefs or leaders of specific duties. Often it is the case that the person ended up working long hours out of his or her own strong sense of work responsibility, rather than in response to an order to do overtime from the company or supervisor. Differences exist in factual awareness concerning responsibilities and quotas between sufferers and people around him/her¹³—an example being claims by supervisors/colleagues that no strong obligations with penalties exist—and thus how stressful the sufferers are is overlooked in the workplace.

And third, there are cases in which the sufferers' health deteriorated after they took on obviously difficult task or assumed a disproportionate workload amid certain circumstances, such as a job transfer, involvement in a new duty, dealing with customers, or tight deadlines (Case 3). In the case presented, the worker's overtime increased greatly during the month prior to the disorder's onset (exceeding 130 hours) compared to the previous month. His struggling to respond to customer complaints is confirmed as a factor behind this. Instances of mental disorder arising from such circumstances are also found among cases in which workers have progressed along their career paths to some extent

and are charged with stressful tasks. When actual disorders appear, a certain degree of correspondence concerning the heaviness of the sufferer's workload can be seen between the sufferer and his or her workplace supervisors and colleagues. In not a few cases, the sufferer was highly evaluated. At any rate, it is fair to say that workplace care in terms of excessive work burdens and health was insufficient.

V. Conclusion

In this study, we analyzed cases of overwork-related mental disorders among younger workers who were 39 years of age or younger at the time that their disorder appeared. Our method involved comparing the awareness of the sufferers themselves and that of their workplace supervisors and colleagues, and then clarifying the background situation that caused each awareness. Even in cases which are recognized largely based on long working hours, it is not only actual length of working hours but also consciousness of quotas and responsibilities, job-related failures, interpersonal relationships, and other factors that can lead to deteriorating health. There are also cases in which a demanding manner of work may not initially appear to be problematic, but perception of the workload gradually (or suddenly at some point) changes and results in a disorder. Moreover, when a certain way of doing a job or working becomes accepted as a matter of course in a workplace, the workload assumed by individuals and signs of change in health are easily overlooked.

The question of how to manage the volume and quality of employees' work as well as their health is a difficult one. However, case analyses reveal that conventional corporate culture and industry practices which are accepted as 'natural,' and therefore whose abnormality has become hard to see, create the background upon which overwork-related industrial accidents occur. It is now required to improve labor environments and review workplace cultures.

1. See MHLW (2019).
2. See Kitanaka (2012). In light of Supreme Court decisions concerning overwork-related suicides, the government created a framework for clarifying the cause-and-effect relationship between stress in the workplace and mental disorders using

Stress Evaluation Tables and other tools for recognizing mental disorder-related industrial accidents.

3. See Takahashi (2019) and Yamauchi et al. (2018).
4. See Takahashi (2019).
5. See Takahashi (2019).
6. The mental disorders covered by the recognition criteria are those classified under Chapter V (Mental and behavioral disorders) of International Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10). Disorders attributable to dementia, head injury, and the like (F0) and disorders due to use of alcohol or substances (F1) are excluded. Representative disorders whose onset may be work-related include depression (F3) and acute stress disorder (F4). See MHLW (2011).
7. See Yamauchi et al. (2018).
8. Although Yamauchi et al. (2018) is important as a study that analyzes the nature of the stress, it is oriented toward grasping quantitative trends. For detailed case studies in Japanese literature on industrial accidents involving mental disorders that focus on the processes by which the cases progressed and concerned parties' awareness, Kawahito (2014) and Kumazawa (2018) conduct detailed studies focused on overwork-related suicides; however, few case studies cover living cases.
9. Only cases of regular employees in business establishments with ten or more employees are included in this analysis.
10. The Research Center for Overwork-Related Disorders established within National Institute of Occupational Safety and Health, Japan (JNIOSH) collects these materials and makes them available for research. Participation in the planning of research projects takes place as part of joint research by JILPT and JNIOSH.
11. Twenty cases are presented in Chapter 2 of JILPT (2020), which is the basis of this paper.
12. In some cases, supervisors and colleagues' view is that overtime will naturally increase during busy periods, or that busyness is just a part of the industry. There are also cases in which the manner in which the sufferer did his or her job was considered to be more problematic than the workload assigned to him or her, cases in which it was claimed there was a problem in

the basic abilities of the sufferer as a working member of society (e.g., in terms of communication skills, etc.), and cases in which the sufferer's lifestyle habits were considered to be problematic.

13. Workplace supervisors and colleagues point out that sufferers' view of responsibilities and quotas largely comes from sufferers' personalities and characteristics. Observed character evaluations include "personality with a strong sense of responsibility" and "personality that tackles tasks by themselves without leaving them to others," for example.

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