

Disputes and policy responses concerning stress-related health problems and workers' compensation: Experiences in Taiwan and comparisons with Japan and Korea

Yawen Cheng

Institute of Health Policy and Management, College of Public Health, National Taiwan University

Running title: Policy responses on work stress

Abstract

Sudden deaths and diseases attributed to overwork had been increasingly recognized as occupational diseases in Taiwan. This study reviewed recent disputes over work stress and policy responses toward their compensation and prevention in Taiwan. Comparative analyses were conducted with Japan and South Korea, where numerous regulations and guidelines concerning work stress have been promulgated during the past decades.

Results of this study showed that controversies surrounding the compensation for stress-related diseases intensified along with rising unemployment rates and suicide mortalities. Governments of the three countries had responded to growing social concerns by amending guidelines for the eligibility of stress-related diseases for workers' compensation, and by adopting preventive measures to reduce working hours and to manage early symptoms of stress-related illnesses. In contrast to western countries where stress-related mental disorders were more commonly compensated, policy responses in Taiwan have focused on stress-induced cardiovascular and cerebrovascular events. This phenomenon might indicate a greater tendency to stigmatize and attribute mental illnesses as personal problems in Asian cultures than in western cultures. It is noticed that legal professionals in Japan and labor groups in Korea play more proactive roles in leading policy discussion. Despite of the similarity of the diagnosis guidelines across the three countries, Taiwan has the lowest compensation rates and so far few effective efforts have been undertaken to prevent the problems of work stress.

Key words: work stress, occupational diseases, worker's compensation, Japan, Korea, Taiwan

Introduction

Stress at work has known to cause a variety of physical and mental health problems. In recent years, stress-related health problems due to intensified work pace, increased workloads as well as escalating job insecurity have become substantial and growing occupational health concerns internationally.

Many developed countries have taken policy initiatives to address the problems of work stress. In most of the developed countries, for instance, the workers' compensation programs recognize stress claims and compensated workers with work-related psychological illnesses (Lippel 1999)(U'Ren and U'Ren 1999; Tisza, Mottl et al. 2003; Keegel, Ostry et al. 2009; Guthrie, Ciccarelli et al. 2010). Taking Australia as an example, the trend of compensated stress claims had increased substantially since the early 1990s, and in year 2004 alone a total of 8260 cases of work-related mental disorders were compensated (Keegel, Ostry et al. 2009; Guthrie, Ciccarelli et al. 2010). Primary and secondary preventive interventions aiming to reduce psychosocial hazards and to modify an individual's response to stressors have also been undertaken in several countries (Iwasaki, Takahashi et al. 2006; Lamontagne, Keegel et al. 2007; Leka, Jain et al. 2011; Lippel and Quinlan 2011).

Studies from western countries indicates that recent development of preventive policies concerning work stress were driven primarily by increasing compensation claims for work-related stress disorders and lawsuits against inadequate work conditions (Tisza, Mottl et al. 2003; Lippel and Quinlan 2011). It is also known that the medical and legal recognition of compensable occupational diseases is greatly influenced by multiple social and economic factors. For example, studies have showed that high unemployment rate and economic hardships experienced by injured workers were important factors that impelled labor authority to expand the coverage and benefits of workers' compensation (Markowitz and Rosner 1989; Dembe 1996; U'Ren and U'Ren 1999). However, this topic has rarely been studied in East Asian countries where excessive long working hours are commonplace.

In Japan, Korea and Taiwan, a unique form of stress-related event – 'Karoshi', which literally means 'sudden death due to overwork' – has triggered heated debates since the 1980s. Most of the sudden death cases were found to have cardiovascular or cerebrovascular causes, and the determination of 'work-relatedness' of such events has been the center of controversy.

Findings from a previous study showed that in spite that the averaged working hours and the percentage of workers with prolong working hours have been in decline since the 1980s in Japan, Korea and Taiwan, disease events allegedly attributed to heavy workloads and work stress had continued to rise (Cheng, Park et al. under review). Using Taiwan as an example, in this study we set out to explore a wider socioeconomic context in which social disputes over work stress and policy responses toward their compensation and prevention have occurred. Comparative analyses were conducted with Japan and South Korea, where numerous regulations and guidelines concerning work stress have been promulgated and have greatly influenced the policy development in Taiwan. Similarities and differences in socioeconomic conditions, policy responses, diagnostic guidelines for the determination of ‘work-relatedness’ of the stress-related diseases, as well as statistics of compensated cases with stress-related events were examined.

Methods

Official statistics on gender-specific unemployment rates, Gini coefficients of house income distribution as well as suicide mortality rates during the period from 1980 to 2010 were obtained and presented graphically in this study.

Social disputes and policy responses concerning work stress.

Diagnostic guidelines for stress-related events of Taiwan and comparison with the Japanese and Korean versions.

Statistics on compensated occupational diseases: Worker’s compensation schemes of Japan, Korea and Taiwan were reviewed and official data on the recognized occupational diseases due to work stress were obtained.

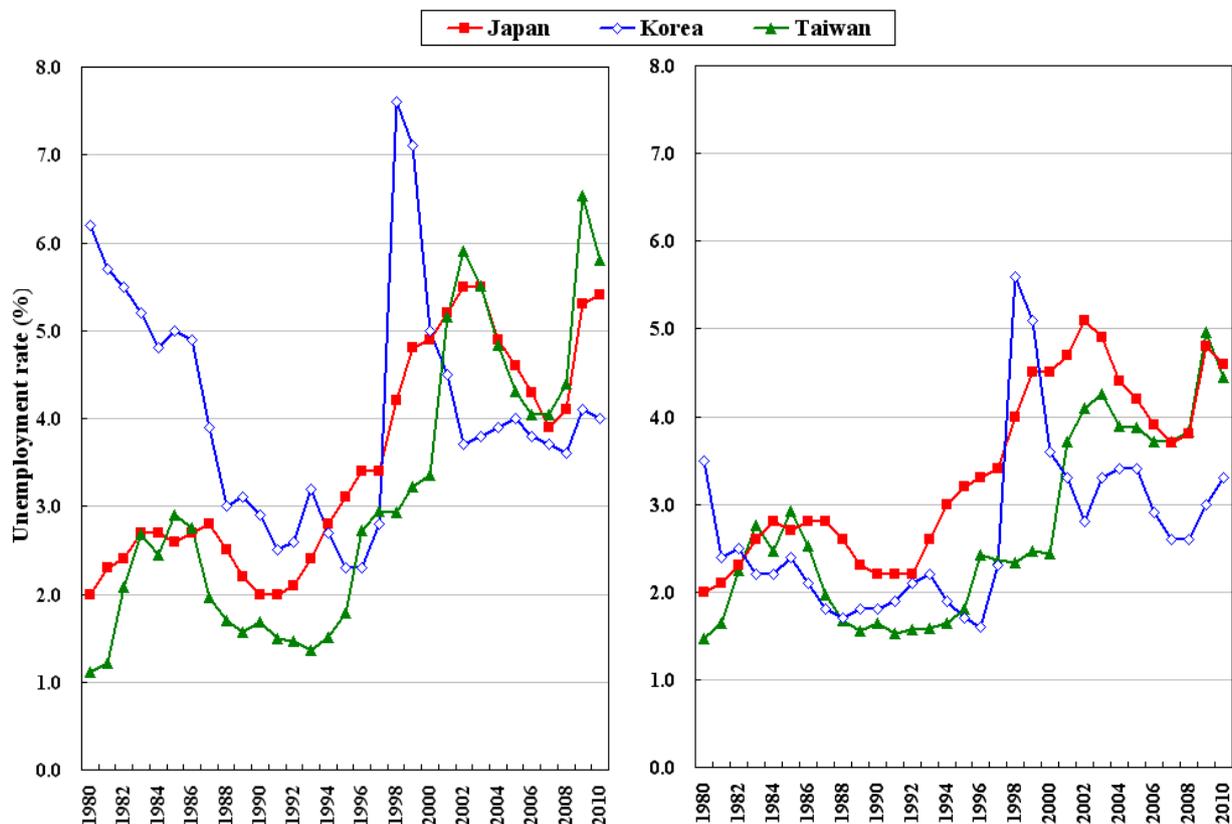
Results

1. Changes in unemployment rates and income inequalities

As shown in Figure 1, unemployment rates in Taiwan had fluctuated but overall had been on the rise during the period from 1980 to 2010. The changes in unemployment rates in Taiwan were almost consistent with that in Japan. While in Korea, unemployment rates were relatively high in the early 1980s, peaked around the year of 1998 when Korea was struck heavily by an economic crisis, and had been

stabilized after 2002.

Figure 1. Trends in gender-specific unemployment rates in Japan, Korea and Taiwan: 1980-2010



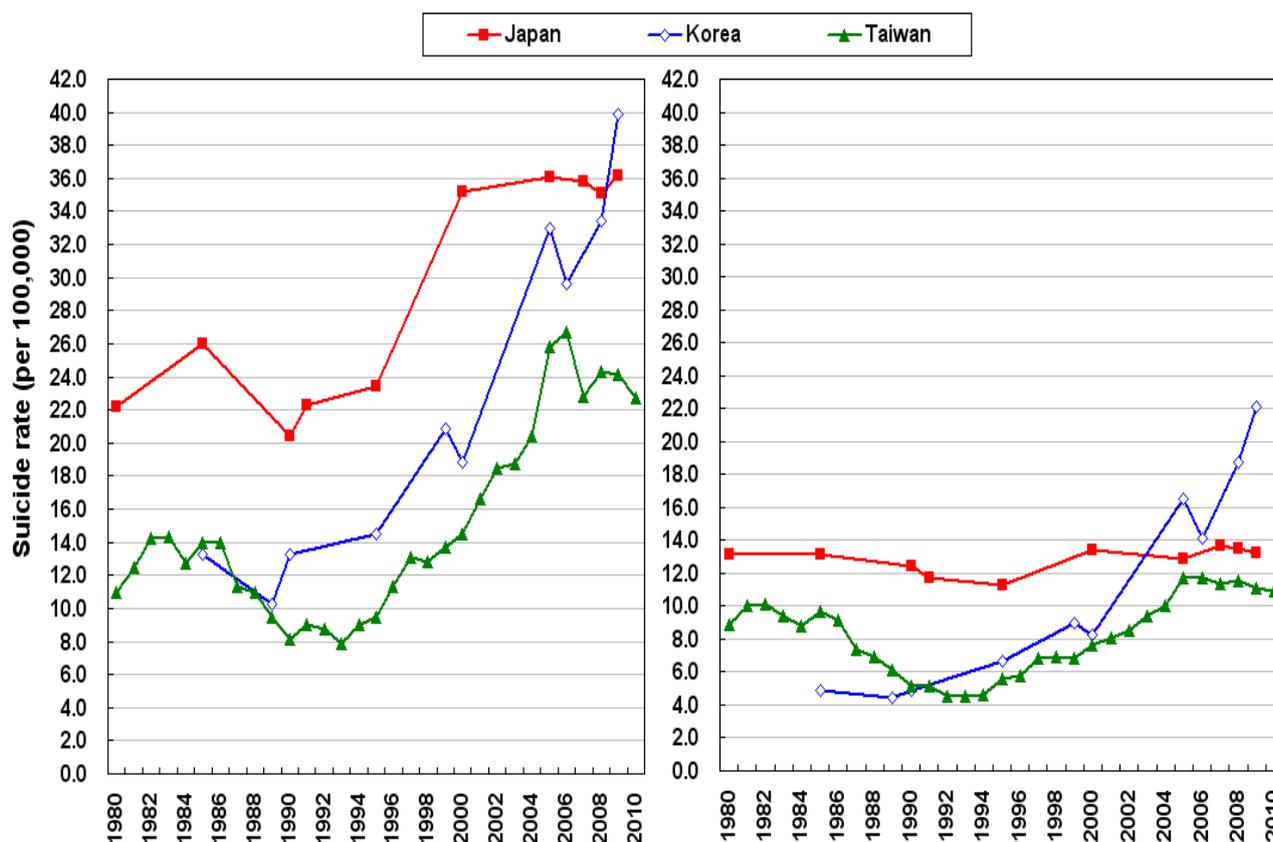
The prevalence of job insecurity in Taiwan was found to be relatively high as compare to other countries (Cheng, Chen et al. 2005). As unemployment rates were rising, it is well expected that job insecurity and precarious employment would have become even more prevalent. In Japan, 53.3 % of female employees and 18.3 % of male employees in Japan were classified as ‘non-regular workers’ in 2010, rising from 29.0% and 7.7% respectively in 1984 (MoHLW 2010). In Japan, studies have shown that the averaged wages of non-regular workers were about 50.4% of that of regular workers (Kanai 2008; Kondo and Oh 2010).

Official statistics also showed that the Gini coefficient of household income has increased in Taiwan (from 0.277 in 1980 to 0.342 in 2010) as well as in Japan (from 0.28 in 1984 to 0.38 in 2008), indicating an increasing trend in income inequality.

2. Changes in suicide mortality rates

Suicide mortality is considered as one of the major indicators for social wellbeing. As shown in Figure 2, substantial increases in suicide mortality have been observed since the early 1990s especially among men. In Taiwan, suicide mortality rate in men has increased from 10.9/100,000 in 1980 to 22.7/100,000 in 2010. Substantial increases in suicide mortality were also observed in Japan and Korea. Changes in unemployment rates have been found to be closely related to male suicide mortality rates (Inoue, Tani et al. 2007; Chang, Gunnell et al. 2009).

Figure 2. Trends in gender-specific suicide mortalities in Taiwan, Japan and Korea: 1980-2010



3. Social disputes and policy responses concerning work stress

Table 1. Chronology of policy development concerning work stress in Taiwan and comparison to Japan and Korea.

| | Japan | Korea | Taiwan |
|-------|---|---|--|
| 1950s | Work-related sudden deaths emerged | | |
| 1961 | Diagnosis guideline for work-related CVD (1 st) | | |
| 1978 | | Diagnosis guideline for work-related CVD (1 st) | |
| 1987 | Diagnosis guideline for work-related CVD (2 nd) | | |
| 1991 | | | Diagnosis guideline for work-related CVD(1 st) |
| 1995 | Diagnosis guideline for work-related CVD (3 rd) | Diagnosis guideline for work-related CVD (2 nd) | |
| 1996 | health management for workers with long working hours | | |
| 1999 | Diagnosis guideline for work-related MD | | |
| 2000 | Guideline for mental health promotion in the workplace | | |
| 2001 | Diagnosis guideline for work-related CVD (4 th) | | |
| 2002 | Comprehensive Program for the Prevention of Health Impairment due to overwork | | |
| 2003 | Guideline for the reduction of non-paid overtime work | | |
| 2004 | | | Diagnosis guideline for work-related CVD(2 nd) |
| 2005 | health management for workers with overtime hours >100 hours/month | | |
| 2008 | | Diagnosis guideline for work-related CVD(3 rd) | Diagnosis guideline for work-related MD |
| 2010 | | | Diagnosis guideline for work-related CVD(3 rd) |

In Taiwan, the diagnosis guideline for work-related cardiovascular and cerebrovascular diseases was first introduced in 1991. However, virtually no CVD cases had ever been recognized as occupational disease until 2006. The diagnosis guideline had been amended in 2004 and 2010. The 2004 amendment adopted Japan's 2001 guideline and defined 'heavy workloads' according to average overtime working hours. The latest amendment was announced on December 17 of 2010, which was to respond intensive media report concerning a 29-year old male engineer who died suddenly at home after regularly working over time at a well-known technology company. The 2010 amendment loosen the criteria of average overtime working hours that could be considered as having 'heavy workloads' by subtracting 8 hours, i.e., from 100 hours to 92 hours within one month prior to the event, from 80 hours to 72 hours during the 2nd to 6th month prior to the event, and from 45 hours to 37 hours during the 6 months prior to the event. The rationale of this revision is to take into account the difference in statutory normal working hours between Japan (40 hours per week) and Taiwan (42 hours per week), i.e., 8 hours difference in normal monthly working hours.

4. Diagnostic guidelines for stress-related events

Table 2. Comparison of diagnostic guidelines for stress-related events of Taiwan, Japan and Korea

5. Statistics on compensated stress-related occupational diseases

Figure 3. Compensated cerebrovascular and cardiovascular occupational diseases in Japan, Korea and Taiwan: 1980-2010

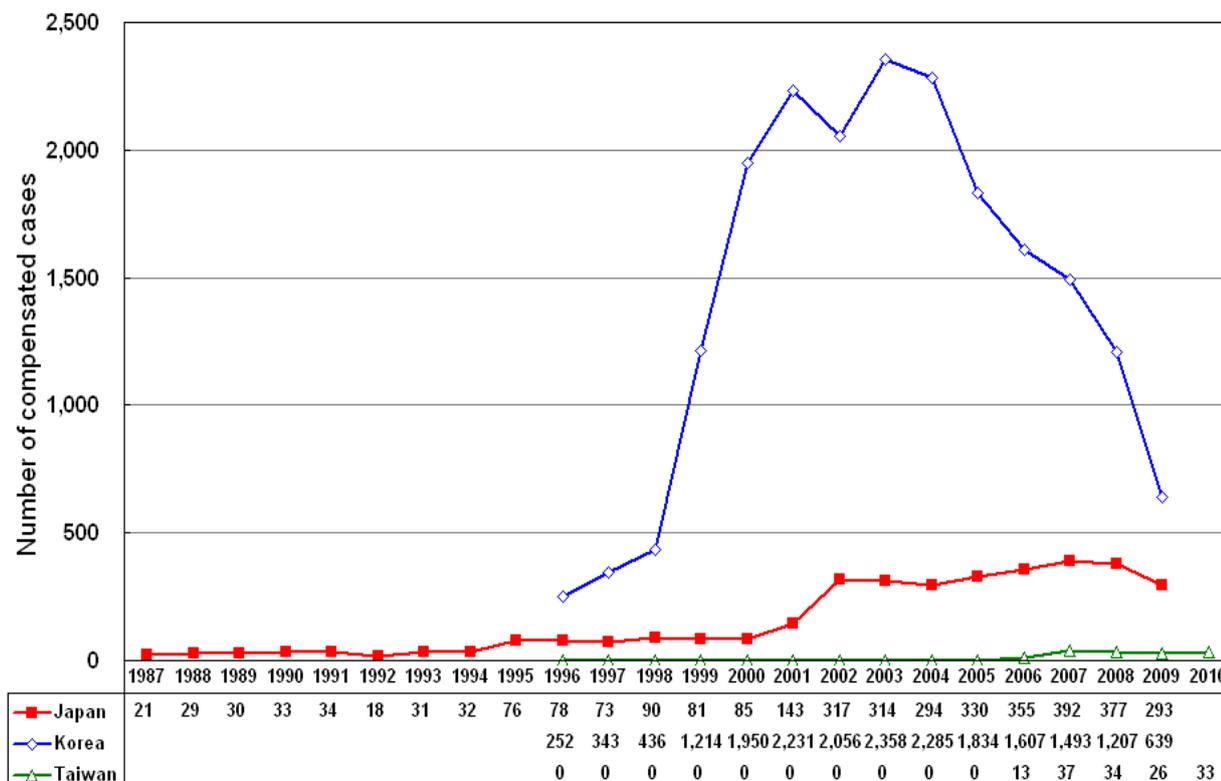
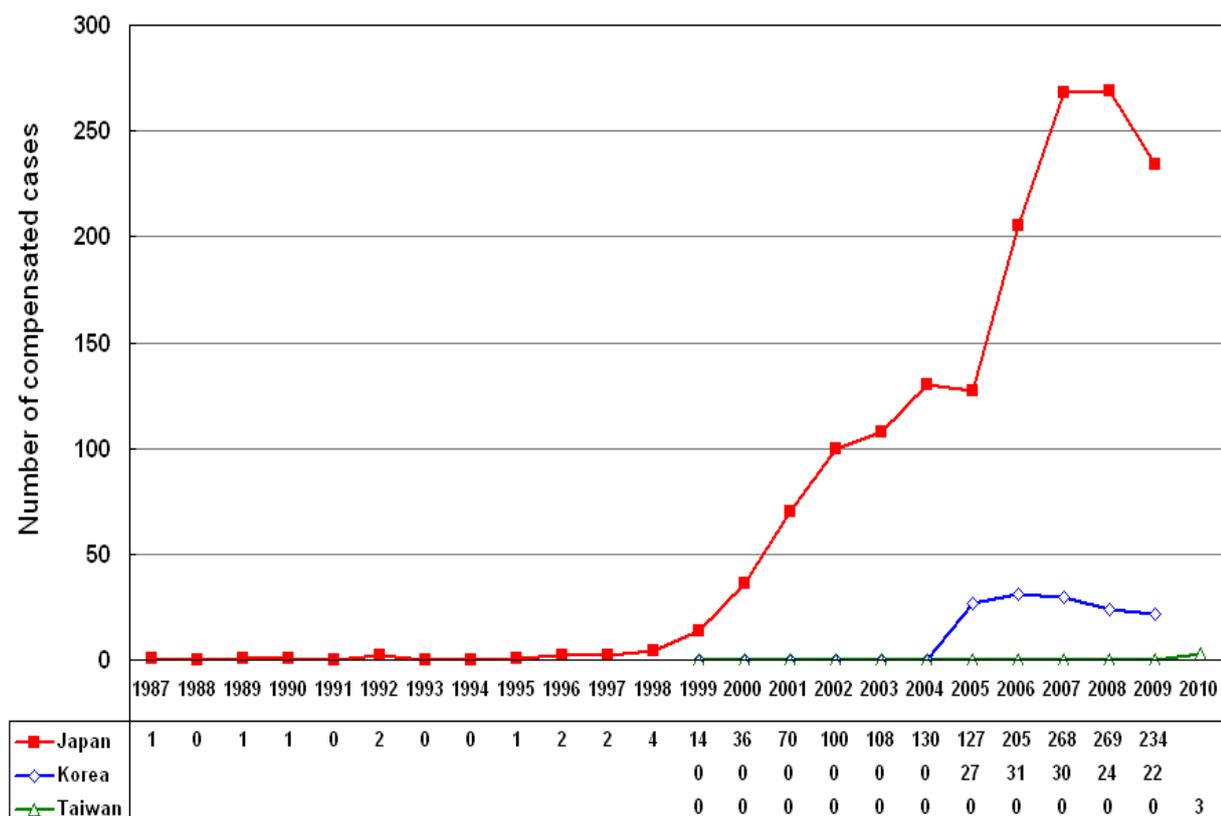


Figure 4. Compensated mental disorders in Japan, Korea and Taiwan: 1980-2010



The Bureau of Labor Insurance of Taiwan recognized and compensated only a total of 478 cases of occupational diseases in 2009. In contrast, there were 11,472 cases of compensated occupational diseases in the year of 2007 in Korea. When taken into account of the size of the insured population, the compensate rate of occupational diseases in Korea was about 17 times higher than in Taiwan.

6. Preventative policies

Discussion

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