Journal of Dental Sciences 19 (2024) 694–697

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.e-jds.com

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The development of labor rights of clinicians in Taiwan after three cases of medical staff burnout

KEYWORDS
Karoshi;
Death due to overwork;
Physician;
Dentist;
Intern

Over the past few decades in Taiwan, there have been successive cases of sudden overwork deaths of technological engineers, professional drivers, security personnel, and medical personnel. After extensive media reports, the society has paid attention to and concerned about the death due to overwork. The term "karoshi" originated in Japan refers to the sudden death due to overwork.[1,2] When workers are stimulated by a large amount of short-term work pressure or under a long-term intense work pressure, they may be overwhelmed and weakened physically and mentally, eventually triggering the burnout syndromes.[3] Therefore, "karoshi" is not a medical diagnosis, but a common name for occupation-induced cerebrovascular and cardiovascular diseases. In 1991, Taiwan referred to the Japanese standard to establish a legal system for the identification of circulatory system diseases caused by occupations.[4] However, Taiwan has long excluded clinicians from the protection of the Labor Standards Act, which has caused a lot of controversy. In this article, we searched for major medical staff burnout events and further analyzed their impact on the development of labor rights of clinicians in Taiwan.

In this article, the internet search method and Taiwan Judgment Database (https://lawsearch.judicial.gov.tw/default.aspx) were used to filter the major events of medical staff burnout and to identify their judicial proceedings. Three cases of medical staff burnout with great significance were extracted. In addition, the significant events related to the development of education, training, and labor rights of clinicians were also extracted. The basic information of these events and their significance are shown in Table 1. All three incidents involved male medical staff, resulting in two cases of death and one case of disability.

In 2004, a 41-year-old employed dentist suddenly died due to a brainstem stroke on his working day. In 2009, a 35-year-old resident physician suddenly collapsed due to acute myocardial infarction while he was working, finally resulting in his disability. In 2011, a 27-year-old medical intern suddenly died due to ventricular cardiomyopathy after 34 h of continuous work. Their deaths and disability were related to cerebrovascular or cardiovascular diseases, as well as the long-term or short-term overwork. Among them, two cases entered civil lawsuits. In the case of the resident physician, he finally won the lawsuit which established the liability of hospitals for occupational accidents among the employed physicians. In the case of the medical intern, however, the court determined that the medical assistance work performed by the student was an act of learning, and ruled that the hospital was exempt from liability. In term of the development of education and training of clinicians in Taiwan, the comprehensive specialist systems were established for physicians in 1988 and for dentists in 2017, respectively. The postgraduate general medical training

https://doi.org/10.1016/j.jds.2023.09.013

Table 1 The major events of medical staff burnout and events related to the development of education, training, and labor rights of clinicians, as well as their significance in Taiwan.

Time	Events	Significance
A. Major events of medical staff burnout		
2004	A 41-year-old practicing dentist who was employed in a dental clinic suddenly died of a brainstem stroke during his lunch break on a working day. The diagnosis was massive hemorrhage caused by a ruptured brain aneurysm. On average, he worked at least 60 h per week and at least 260 h per month for nearly a year before the onset of the brainstem stroke.	Although there was no litigation dispute in this case, peers and colleagues pointed out the cause of death as "karoshi" (also known as death due to overwork). It is the first high-profile case of a dentist dying from overwork in Taiwan.
2009	A 35-year-old fourth-year resident physician of a teaching hospital suddenly collapsed in the operating room and recovered safely after the first aid. The diagnosis was acute myocardial infarction combined with arrhythmia and hypoxic encephalopathy. However, due to the brain injury and mental deterioration, he was unable to continue to work as a physician. It was later identified as an occupational accident by the Bureau of Labor Insurance. On average, he worked 84 h of overtime per month for the six months before the accident.	In Taiwan, this was the first successful lawsuit against physician overwork which established the liability of hospitals for occupational accidents among the employed physicians.
2011	A 27-year-old medical intern at a teaching hospital was found dead in the dormitory toilet after nearly a year of internship. The diagnosis of death after gross autopsy was sudden cardiac death and right ventricular cardiomyopathy. He worked 34 h straight at the hospital the day before his death.	In Taiwan, this was the first karoshi case of a medical student. Although the cause of death was overwork for the student in this case, the court determined that the medical assistance work performed by the student was an act of learning, and ruled that the hospital was exempt from liability.
B. Events related to the development of education and training of clinicians		
1988	The system of Diplomate Specialization and Examination Regulations was implemented in 1988 and added to the current 23 medical specialties in 2010.	A comprehensive medical specialist system for physicians was born in Taiwan.
2003	The postgraduate year training program for physicians (PGY) was launched on a trial basis in 2003, and the 2-year PGY was fully implemented in 2019.	A postgraduate general medical training system for physicians was established.
2009	The 2-year postgraduate year training program for Chinese medicine doctors (PGYCMD) was implemented on a trial basis in 2009 and fully implemented in 2014.	A postgraduate general medical training system for Chinese medicine doctors was established.
2010	The 2-year postgraduate year training program for dentists (PGYD) was implemented directly in 2010.	A postgraduate general medical training system for dentists was established.
2013	From 2013, the school of medicine changed from a seven-year education system to a six-year education system. From 2015, the school of post-baccalaureate medicine changed from a five-year education system to a four-year education system. In the new system, the full-time internship in the final year was changed to clinical practice courses spread over the last two years.	Currently, there is no one-year full-time internship in the medical schools, but the schools of dentistry and Chinese medicine still have a one-year full-time internship.
2018	The system of Dentist Specialization and Examination Regulations was implemented in 2018 and added to the current 11 dental specialties in 2023.	A comprehensive dental specialist system for dentists was born in Taiwan.
C. Events related to the development of labor rights of clinicians		
2007	The Ministry of Education announced the clinical practice guideline for medical students of internship. This guideline does not include medical students of Chinese medicine and dental students. Internship of medical students includes clerks and interns. Although the guideline has a rule that the internship duty time should not exceed, it mainly emphasizes internship student status and obligations.	The earliest clinical practice guideline for medical students was formulated in Taiwan.
2015	The Ministry of Education announced the implementation principle of clinical practice for medical	The principle was the earliest standard that mentioned the protection of medical students from death,

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Table 1 (*continued*)

Time	Events	Significance
	students in 2015 and for medical students of the new system in 2016. Although the principle also has a rule that the internship duty time should not exceed, it emphasizes that medical students are not part of the workforce of the internship institution.	disability, injury or illness due to internship.
2017	The Ministry of Health and Welfare announced the guideline of the protection of labor rights and the working hours for resident clinicians, which specifically regulated the upper limit of the working hours of resident clinicians. All clinical trainees of postgraduate year training program for physicians, Chinese medicine doctors, and dentists, and specialist training for physicians and dentists were included in this regulation.	The first regulation on the protection of labor rights for resident physicians was proposed by the competent health authority in Taiwan.
2019	The Ministry of Labor announced that the Labor Standards Act applies to resident clinicians employed in the health care service industry.	Taiwan government confirmed that the Labor Standards Act applies to resident clinicians.

systems were established for physicians in 2003, for Chinese medicine doctors in 2009, and for dentists in 2010, respectively. Furthermore, due to changes in the medical education system, currently, there is no one-year full-time internship in the medical schools, but the schools of dentistry and Chinese medicine still have a one-year full-time internship. In term of the development of labor rights of clinicians, the Ministry of Education only proposed relevant regulations for medical students. Although the current version mentioned the protection of medical students from death, disability, injury or illness due to internship, it emphasized that medical students are not part of the workforce of the internship institution to exclude their labor rights. Furthermore, the first regulation on the protection of labor rights for resident physicians, Chinese medicine doctors, and dentists was proposed by the competent health authority in 2017. Finally, Taiwan government confirmed that the Labor Standards Act applies to them in 2019.

Previous researches have rarely linked medical staff burnout with labor rights of clinicians. This article tried to explore the development of labor rights of clinicians in Taiwan after three cases of medical staff burnout. According to the press release of the Ministry of Labor, employed physicians should be protected with the same rights as laborers. Since 2019, resident clinicians (including physicians, Chinese medicine doctors, and dentists) were included in the Labor Standards Act. It was estimated that 4680 resident clinicians, including those employed by non-civil servants in the public hospitals, would be benefited. However, according to statistics from the Ministry of Health and Welfare and the Ministry of Education, there were 49,493 physicians, 7094 Chinese medicine doctors, and 15,127 dentists in 2019, as well as 1261 medical graduates, 465 Chinese medicine graduates, and 407 dental graduates in the 2019 academic year. Among 70 thousand clinicians, less than one tenth of them were benefited from the new policy. Considering internship courses in the last two years of medical schools and in the last year of Chinese medicine schools and dental schools, more than 3000 medicine-related interns work at teaching hospitals every year, but they have no labor rights at all. On the other hand, with the implementation of a comprehensive dental specialist system, more and more dental trainees will enter the workplace in the future. Since dental specialist training may require more laboratory training hours, the protection of their labor rights will be a major challenge.[5] We conclude that all employed clinicians should have full labor rights, and those interns who actually participate in caring for patients should also have equal labor rights. In fact, all clinical workers should have self-awareness of their own health management. Furthermore, using commercial insurance may be a feasible measure to make up for the deficiencies in the labor rights of medical and dental students in the current medical and dental education system, respectively.

Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

Acknowledgments

None.

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Received 10 September 2023
Available online 22 September 2023