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Original Article

Lessons from the MOHW compensation pilot program on birth incidents: First step and looking forward

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ABSTRACT

Objective: In Taiwan, the number of medical disputes and litigation has increased dramatically over the past 20 years. The seriousness of medical disputes continuing grows in clinical practice, especially in obstetricians. This study provided a possible solution to the medical dispute litigation issue.

Materials and methods: The Ministry of Health and Welfare (MOHW) compensation program for birth incidents has been implemented since 2012 and it provided pecuniary compensation for mothers, newborns, and fetuses who got injured or died in birth-related medical incidents. We analyzed the amount and distribution of compensation, and assessed the effect of compensation on the number of medical dispute litigation.

Results: From 2012 to 2015, a total of 348 applications was received, 322 of which were examined by the committee. Among the examined cases, 278 were approved for compensation. The total amount of compensation had reached 266.16 million NTD (8.32 million USD). For the medical dispute litigation, a dramatic decrease in number was observed after the implementation of this compensation pilot program.

Conclusion: Prompt compensation provided instant economic and spiritual support for patients and families. Pecuniary compensation could be an alternative choice of justice, which might encourage the injured to receive economic compensation, instead of filing a lawsuit against the physician or hospital institution. As a result, the number of dispute litigation has decreased. This indicates that the compensation program is an efficient way to improve medical dispute litigation difficulties.

In the medical industry, physicians are expected to help people achieve their hopes and expectations for achieving wellness. But when physicians act negligently and the outcomes do not meet the expectations, medical disputes arise. In Taiwan, due to the lack of a no-fault system for medical issues, as in New Zealand and other countries [1,2], people tend to use criminal law rather than civil law to accuse a physician in order to get compensation when facing medical disputes. The lengthy judicial process then becomes a burden to patients, families, and physicians. The possible pressure of being a criminal defendant has become one of the major obstacles for medical students when determining their specialty in their medical career. The Ministry of Health and Welfare surveyed reasons affecting physicians' will when choosing specialty. The result showed that life quality, sense of achievement, medical dispute, and duty hour are major reasons that influence choice of specialty. Furthermore, the survey indicated that medical disputes is one of the primary reasons that stops physicians from choosing surgery, obstetrics and gynecology, pediatrics, internal medicine, and emergency medicine.

To reduce the number of litigations, especially for obstetricians, we implemented a nationwide pilot program to assist medical institutions in dealing with medical disputes arising from death or injury to the mother or child during delivery, and this program has demonstrated outstanding outcomes. In this article, we provide our experience in solving medical disputes and reducing litigations in obstetrics and gynecology.

Introduction

Taiwan is one of the few countries that has a well-known healthcare insurance system for its 23 million nationals. However,

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studies had shown that the number of medical disputes has risen significantly during the past 20 years and increased in severity [3,4]. Litigation of medical disputes is a lengthy and exhausting process that creates a stressful and heavy burden for patients, families and physicians. In particular, it mostly goes to criminal suits along with civil suits due to the judicial system in Taiwan. According to the official statistics, the number of medical dispute litigations in Taiwan increased from 145 cases in 1987 to 619 cases in 2012 (Fig. 1). Obviously, medical disputes are now an increasing feature of clinical practice. Of all litigations, around 14% are attributed to obstetrics and gynecology. This difficult situation not only lowers job satisfaction and results in a serious reduction in the number of practicing obstetricians, but also decreases the number of medical students specializing in obstetrics and gynecology.

A study in the United State revealed that obstetrics and gynecology was one of the top ten specialties in which physicians most likely to face malpractice claims [5]. In Taiwan, obstetrics and gynecology are specialties in which physicians with high-risk of losing lawsuits [6]. Not only senior doctors are affected by litigation; medical students and junior doctors are likely to choose a specialty with consideration for the risk of litigation [7].

Furthermore, medical litigation encourages defensive medicine, which is both social cost and economic loss. Higher levels of defensive medicine are part of the social costs of instability in the malpractice system. The most frequent form of defensive medicine, ordering costly imaging studies, seems merely wasteful, but other defensive behaviors, such as referring patients to other physicians, may reduce access to care and even pose risks of physical harm [8]. The situation of avoiding the care of high-risk patient is the same in Taiwan.

The growing tension in physician–patient relationship and the tendency to file a lawsuit significantly affect the medical practice environment. The uncertainty and lack of guarantee may even result in a reluctance to give birth. In order to avoid medical disputes and prevent further time-consuming judicial processes, we implemented a pilot compensation program on birth-related medical incidents. In this study, we examined the outcome of this program, with a focus on the impact of medical lawsuits. We hope the program can prevent the tendency to file medical lawsuits and improve the medical practice environment in obstetrics and gynecology. We also expect that the compensation program can help protect women and further bring the effect of raising the country's fertility rate in the coming future.

Materials and methods

The research was based on the Ministry of Health and Welfare compensation pilot program on birth incidents. This pilot program provides pecuniary compensation for mothers, newborns, and fetuses who get injured or die in birth-related medical incidents. Part of the tobacco surcharge, which is intended to support medical care quality improvement, was used to finance this pilot program.

The incidents included in this program occurred from Jan. 1, 2012 to Dec. 31, 2015 and were limited to death or disability severity greater than moderate disability. There were exclusion criteria applied (Table 1). The institutions that reached agreement with patients for pecuniary compensation within two years after incidents were eligible to apply for the compensation on behalf of patients or their families. The application was further examined and concluded within three months by a review censorship composed of medical and legal specialists.

The number of birth is collected from Ministry of the Interior. The maternal and neonatal mortality rates were collected from Ministry of Health and Welfare.

Results

This pilot program included 299 out of 330 institutions that offered obstetric service. The participating institutions included 150 hospitals (50.17%), 148 clinics (49.5%), and one midwife clinic (0.33%). This program covered most of births in Taiwan. For example, there were 210,383 births in 2014, and 202,853 were covered in this program. The coverage rate was as high as 96%. In 2014, the maternal mortality rate was 6.6 per 100,000 population and the neonatal mortality rate was 2.2 per 1000 births. The total application in this program was 348 cases with an average of 87 cases per year, which accounted for a very small portion of births. Among these 348 applications, 332 were examined by the committee. Among the examined cases, 278 were approved for compensation. Those cases not examined were mostly waiting for process. The severity of injuries of these 278 approved applications

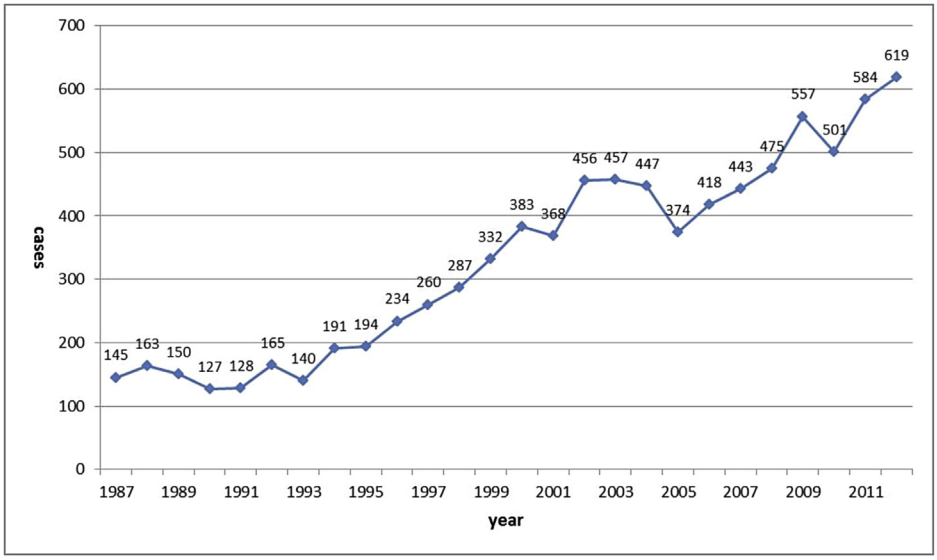

Fig. 1. Number of medical dispute litigations. The total number of medical dispute litigations in Taiwan increased from 145 cases in 1987 to 619 cases in 2012.

Table 1
Exclusion criteria.

1. Adverse outcomes due to miscarriage
2. Adverse outcomes due to preterm labor earlier than 36 weeks, severe congenital deformity, or genetic defect
3. Adverse outcomes over mental or spiritual loss due to pregnancy or delivery
4. Incidents with clear attribution to institutions or patients
5. Participants of clinical trials during pregnancy

for compensation was roughly divided into death, profound disability, severe disability, moderate disability, and other.

With an approval rate of 86% (278 over 322 cases), the reason why cases had been declined for compensation were mostly pregnancy/delivery risk-unrelated injuries (21; 47.7%) or out of compensation criteria (14; 31.8%). A small portion of applications were declined according to exclusion criteria (9; 20.5%). The most common reasons for pregnancy and delivery risk-unrelated injuries were sudden death of newborn (6; 13.6%), followed by congenital brain defects (4; 9.1%) and unknown still birth (3; 6.8%). Reasons that did not qualify patients for compensation were primarily mild disability, which is not included in this pilot program. Those cases that met the exclusion criteria were all due to preterm labor earlier than 36 weeks.

The application for compensation required certain documents, such as medical records, proof of disability and certificate of diagnosis, etc. According to the stipulation, the investigation decision would be made within 90 days after filing, with a possible 30 days extension if needed. In fact, the average time of investigation was 43.87 days.

The total amount of compensation has reached 266.16 million NTD (8.32 million USD, 1 USD≒32 NTD), and the compensation for incident of death was almost twice that of disability. Among the incidents of death, compensation for mother was in 136.3 million NTD (4.26 million USD), accounting for 77.2% of the compensation for death and 51.2% of total compensation. In all kinds of injuries, including death and disability, most applicants received the maximum compensation (Table 2).

We further analyzed the cause of incidents. The three most common causes of incidents to mothers were amniotic fluid embolism (37; 42.5%), poor uterine contraction, postpartum massive hemorrhage, DIC (19; 21.8%), and gestational hypertension (8; 9.2%). Other causes of incidents in these 87 applications included pulmonary embolism and thrombi embolism, placental abruption, cardiovascular disease, HELLP syndrome, unknown cardiac arrest and shock, intracranial hemorrhage, and infection, etc.

The leading cause of death to fetuses was placental abruption (13; 28.3%), followed by unknown death, fetal distress, and cord around neck. Incidents of umbilical cord accidents and placental insufficiency also accounted for some of the fetal death. In terms of newborn incidents, the most common three causes of injuries were fetal distress (36; 24.8%), placental abruption (25; 17.2%), and perinatal asphyxia, respiratory distress (19; 13.1%), followed by shoulder dystocia, brachial nerve injury (14; 9.7%) and meconium aspiration syndrome, meconium stain (14; 9.7%). Infection, prolonged labor, pulmonary hypertension, pulmonary hemorrhage, intracranial hemorrhage, placenta previa, and fetomaternal transfusion syndrome might not be the leading causes of injuries to newborns in our finding, however, they still caused severe adverse outcomes, mostly death.

Discussion

A study in Taiwan found that taking revenge, feelings of guilt, and the practice of filial piety are important factors that motivate people to pursue malpractice litigation [9]. Among these litigations, up to 80% is related to criminal law. People have the tendency to sue a physician through criminal procedures for two main reasons. First, in a criminal suit, the prosecutors have the obligation and responsibility to investigate the incident with no charge. However, this process might waste lots of social, judicial and economic resources. Second, when facing criminal litigation, physicians bear much more burden and stress than encountered in civil law. As a result, they are willing to pay more compensation or directly settle out of court with the patient. The negative effect due to this unique scenario may even expand to a social problem, which makes our medical system vulnerable.

The fundamental purpose of this program was to decrease litigation through economic alternatives. No advance cause analysis of incidents is conducted, so the compensation is made as much as possible to provide instant economic and spiritual support. The result had shown that financial support helped to reduce litigation. We believed that this alternative provides another choice of justice for patients, which may encourage them to receive economic compensation, instead of accusing physicians or hospital institutions. We also believe this is one of the reasons that our birth-related litigation number dropped dramatically. According to official data, since the project was implemented in 2012, the number of obstetrics medical dispute litigations has decreased from 30 cases in 2011 to 13 in 2014, with an annual average of 10.67 cases after the implementation of the project (Fig. 2). This dramatic decrease in litigation corresponded with the finding that the number of obstetrics and gynecology medical dispute mediations in a local competent authority tended to decrease.

Medical disputes had become a common issue in many countries, and each country had developed their own version of resolution. Japan launched a no-fault compensation system in 2009 for

Table 2
Compensation statistics (Compensation limit and amount are shown in million NTD, 32 NTD≒1 USD).

	Cases (No.)	Compensation upper limit (million NTD)	Total compensation amount (million NTD)	Average compensation amount (million NTD)
Mother				
Death	69	2	136.3	1.98
Profound disability	11	1.5	16.5	1.5
Severe disability	3	1.3	3.9	1.3
Moderate disability	4	1.1	3.1	0.78
Fetus				
Death	46	0.3	13.6	0.3
Newborn				
Death	90	0.3	26.66	0.3
Profound disability	20	1.5	27.2	1.36
Severe disability	15	1.3	18.7	1.25
Moderate disability	19	1.1	19.9	1.05
Other	1	NA	0.3	0.3

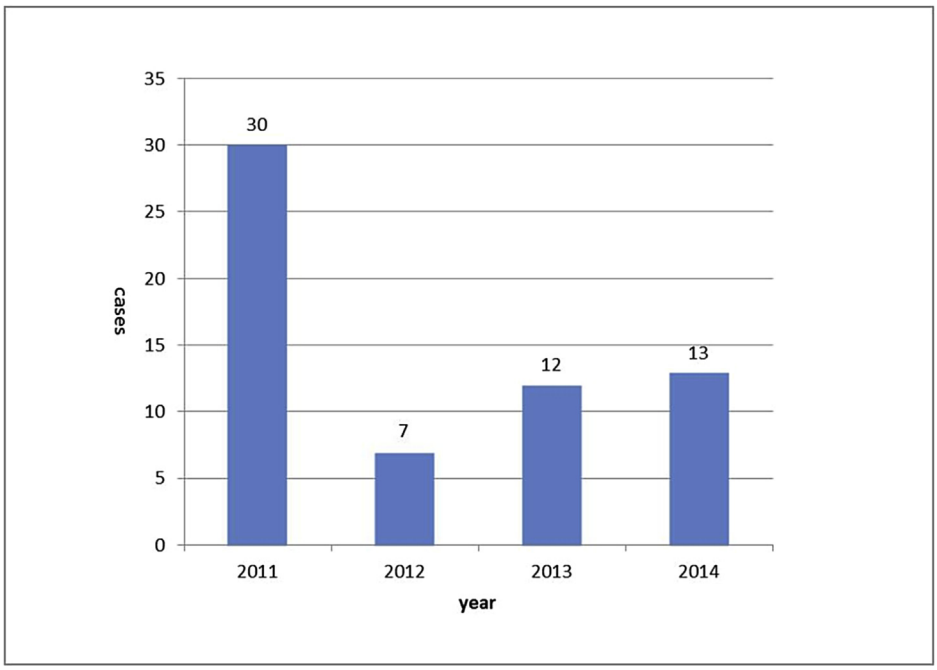

Fig. 2. Obstetrics medical dispute litigations decreased after compensation program. The number of obstetrics medical dispute litigations has decreased from 30 cases in 2011 to 13 in 2014, with an annual average of 10.67 cases after the implementation of the project.

obstetric and gynecological accidents with cerebral palsy children [10]. The health service in Norway, no-fault compensation in New Zealand and France also provide financial support to patient and their families when medical negligence occurs [11–13]. Each country has wide variation in their compensation principle [14]. Due to the variation in compensation criteria, each country has a different approval rate. For example, the approval rate is 86% (278 over 322) in Taiwan, 45% in Sweden, and 91% in Japan [15–17]. Furthermore, the average time of investigation and decision making is 43.87 days in Taiwan, which only accounts for half of the time compared with other countries. One reason is, unlike other countries in which the experts' opinions vary [18], our experts showed highly consistent agreement during the process. The short investigation time may indicate prompt support for the patients and families in suffering.

In addition to the purpose of reducing medical dispute litigations, the pilot program also brought great influence on obstetrics and gynecology practicing environment. Medical students choose a specialty as a career for many reasons, mostly due to personal interest, lifestyle and specialty characteristics, including workload and stress [19]. One survey of grade four medical students in Florida indicated that only 10% of students would choose obstetrics and gynecology as a career option. And 85% of them would consider leaving to other states to continue this job since Florida is professional liability crisis state with a high rate of malpractice and litigation [20]. Another survey of over 200 medical students in Northern Taiwan revealed the same problem; it is much harder to recruit sufficient obstetrics and gynecology residents [21]. Although many factors affect the career satisfaction [22,23], we believe that high risk of malpractice and litigation are part of the reasons.

Since we implemented a compensation program on birth incidents, the birth-related litigation rate has been lower and the recruit number of new blood in obstetrics and gynecology has been increasing over three consecutive years. The application rate of the first year resident increased from 72% (34/47) in 2012 to 76% (53/70) in 2013 and 89% (62/70) in 2014. There is strong evidence that this project is an efficient way to solve the manpower problem. A survey showed 83% of physicians believe this program can improve working environment for physicians and provide more insurance for birth safety. In fact, 97% believe this is one of the best ways to resolve and reduce medical dispute.

Not only dedicating to reduce medical dispute litigation, patient safety and healthcare quality is still one of the major concerns of birth safety. A quality examination committee had conducted on-site visit to all the clinics and document review to all the hospitals. The committee examined basic requirements regarding patient safety, including infection control, instruments and devices maintenance, medication safety, and referral mechanism, etc. Generally speaking, hospitals had great compliance to standards due to the existing hospital accreditation. However, clinics had more deficiencies to be improved. The most common deficiency was insufficient preparation prior to medical treatment, such as incomplete informed consent or pre-anesthesia assessment. Advices and suggestions were provided to clinics according to their deficiencies to help quality improvement. Common advices included completing continued medical education for anesthesiologist, periodically recording instrument maintenance, and strengthening medication safety, etc. With compensation pilot program and quality examination at the same time, the goal is to minimize the incident of birth-related incidents by risk management and provide compensation as possible as we can.

Finally, beyond the birth-related incidents compensation pilot program, the legislation process of Birth-Related Incidents Relief Act was completed in the end of 2015. After the implementation of regulation, the protection for mother, fetus, and newborn is getting comprehensive. In addition to medical institutions, birth incidents occurred outside institutions are all covered in this new Act. We hope the positive effect could spread gradually and create an even better medical system for patients and physicians.

Conflicts of interest

The study was not supported by any funding bodies. The authors and their institutions did not receive any payment or services from a third party, and there were no relevant financial activities outside the submitted work. The authors have no conflicts of interest to declare.

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