



No-fault patient compensation for medical malpractice in Thailand: option or not?

Archie A. Alexander^{1,*} and Prasutr Thawornchaisi²

¹James K. Elrod Department of Health Administration, LSU-Shreveport, Shreveport, Louisiana, USA.

²The Bureau of Medical Laws, Department of Medicine, Ministry of Public Health, Bangkok, Thailand.

Abstract

Thailand and its ASEAN partners, like many countries, employ strategies to provide quality care. They also face challenges from unsafe and negligent care, which may create transactions costs for their healthcare (e.g. defensive medicine) and legal systems (e.g. claims, litigation, and payouts). Like many countries, Thailand adopts traditional and/or nontraditional (e.g. no-fault patient compensation system (NFPCS)) tort reforms to limit these costs. Attempts to enact NFPCS usually fail. Thailand failed to enact a NFPCS through its Law on Health Service Affected Person Protection in 2007. To learn why NFPCS adoption efforts fail, the authors conducted a modified scoping review of the literature employing electronic, English keyword-based Arksey and O'Malley and PICOTS search of public (Google, Google Scholar, EBSCO, and Medline) and private (Lexis) databases. Review yielded 105 reviewable NFPCS publications, which revealed 9 countries and 2 U.S states (Florida and Virginia) adopted general (N = 6) or limited (N = 5) NFPCS schemes. After 2000, 5 countries (Canada, England, Ireland, Scotland, and Thailand) and 6 US States (Georgia, Maine, Maryland, Montana, New Hampshire, and Tennessee) attempted and failed. Conditions (e.g. reasons or factors) favoring or disfavoring adoption included concerns for: (1) fairness of compensation amounts versus judicial awards, (2) excessive NFPCS costs, (3) system-based tort reform preferences, and (4) professional (medical and legal) association resistances. In conclusion, a minority of countries and US states currently maintain successful NFPCSs. NFPCS adoption remains a challenge worldwide, especially if the medical and legal professions oppose adoption.

Keywords: No-fault, medical malpractice

Article history: Received 24 March 2019, Accepted 18 October 2019

1. Introduction

Medical malpractice (Med Mal) originates from the Latin words 'mala praxis' coined by the English jurist Lord Blackstone in 1765. In general, the term refers to the careless delivery of substandard medical care that harms a patient. [1 — 3] Both common (e.g. torts) and civil (e.g. law of delict or wrongful acts) law-based legal systems maintain a civil cause of action for victims of Med Mal. Arising during antiquity, Med Mal remains a worldwide problem that results from unsafe medical care. Unsafe medical and Med Mal are global problems, and ASEAN countries, such as Thailand, Singapore, Philippines, Malaysia, Indonesia, and Viet Nam also report similar problems. [4 — 8] Unsafe medical care may arise from adverse events or medical errors, and both contribute to global patient morbidity and mortality. [9, 10] Fortunately, only a fraction of them involve substandard care that leads to a Med

Mal claim. Recent trends, however, suggest the incidence of unsafe medical care and Med Mal claims are rising in many developed and developing or emerging countries, including Thailand.

Countries attempt to lower their incidence of unsafe medical care and Med Mal claims by adopting a variety of strategies ranging from safety measures to legal systems reforms. Med Mal tort reform strategies may be characterized as traditional (e.g. limiting damage awards, time for filing claims, legal fees and expert witnesses) or nontraditional (e.g. establishing ADR programs, expert panels, or no fault patient compensation systems (NFPCS)) tort reforms. These reforms aim to reduce the (1) number of unmeritorious claims, (2) catastrophic payouts, (3) legal and health care costs, and (4) defensive medical practices, [10] Most countries, especially the US, favor traditional reforms over nontraditional tort reforms, especially NFPCSs. [12 – 18] NFPCSs differ from US state-based patient compensation funds (PCFs) enacted by US states (N = 9: Indiana, Kansas, Louisiana, Ne-

*Corresponding author; email: archie.alexander@lsus.edu

braska, New Mexico, New York, Pennsylvania, South Carolina and Wisconsin), which provide state-based funds to cover judgments against physicians requiring payouts exceeding their Med Mal insurance coverage caps [14] NFPCSs and PCFs also differ from the US federal National Vaccine Injury Compensation Program (VICP), because the VICP is a federally funded no-fault-based program covering individuals injured by a vaccine. [15] While the goals of these systems or programs are to reduce or eliminate legal claims and achieve just compensation for its victims, only 9 countries and 2 US states support general or limited NFPCSs, and recent efforts to enact them fail, where more US states support PCS programs ($N = 9$) than limited NFPCSs ($N = 2$).

Like other countries and US states adopting NFPCSs, Thailand began its effort to establish a NFPCS for its public health services section when complaints and claim payouts started trending upwards in 2004. The Legal Office of the National Health Security Office of Thailand saw claims and payouts rise from 99 and 49,141 TB payouts in 2004 to 810 and 102,108 TB payouts in 2009. [19] Its total compensation went from 4,865,000 TB in 2004 to 73,223,000 in 2009, which represents a 281 percent growth over 5 years. Thai policymakers also associated these upward trends with a deterioration in physician-patient relationships and potential for defensive medical practices. [20] Their experiences mirrored those reported in developed countries. [21] Rising claims and payouts also became a potential threat to its efforts to become a regional medical hub.

To address these troubling risks and trends, the National Health Commission of Thailand convened a study committee in 2006 to improve relations among its health services participants by reducing or eliminating these events. Its members responded in 2007 with a Law on Health Service Affected Person Protection (HSAPP) which provided a legal framework for removing fault, liability and litigation for Med Mal for clinic-based services. [22] Drafting of the HSAPP did not lead to passage its in 2007 nor any time thereafter. Lack of passage and adoption by Thailand is unsurprising given several countries and multiple US states experienced similar results. [18, 23] Apparently, success or failure of NFPCS adoption efforts may depend on the presence or absence of a variety of conditions (reasons or factors) within a given country or state. These conditions may also influence key stakeholders within a health care system, such as patients, physicians, attorneys, advocates, and policymakers. Because the HSAPP remains before the Thai Parliament, it may be helpful to review the experiences in other countries and US states to adopt NFPCSs.

To learn why countries and US states pass NFPCS legislation or not, the authors conducted a modified Arksey and O'Malley scoping review of peer and non-peer reviewed literature to identify articles dis-

cussing adopted and unadopted no-fault compensation systems. [24 – 26] The authors searched for literature identifying potential conditions (defining condition as a reason or factor) potentially explaining why governments (national or subnational) adopt them or not. While the goal of this study is not to perform a formal cross-country comparative analysis between countries, including Thailand, the authors hope the information learned from the search will assist Thailand with understanding why it may or may not pass its Law on Health Service Affected Person Protection (HSAPP) given existing circumstances.

2. Materials and Methods

2.1. Modified scoping review methodology

This study relies on a literature review performed with a modified Arksey and O'Malley [24], [26] scoping review (deleting steps 1 and 6) combined with a PICOTS framework using a WHO [25] to identify current, relevant and valid secondary authorities on no fault patient compensation systems (NFPCSs). The authors modified the standard scoping methodology by deletions of step 1 (identifying a research question) based on an *a priori* setting of the research question and step 6 (consulting key stakeholders), which was not part of this study. The authors performed steps of (2) locate relevant sources, (3) select articles based on inclusion and exclusion criteria, (4) sort, organize, and study their data or information, and (5) collate, summarize and report data or information enabled investigators to rapidly map the literature for peer and non-peer reviewed literature. [26] Investigators added a PICOTS format utilized by WHO for scoping medical malpractice strategies in obstetrics reported in 2015. [24] The primary elements of PICOTS are: (1) patients, (2) interventions, (3) comparators, (4) outcomes or findings, (5) timing, (6) settings and (7) study design. [24] PICOTS allows for *a priori* inclusion (Yes) or exclusion (No) of authorities based on the presence of English-based natural language (keywords, terms, and phrases) comparators in the order of: (1) title and abstract (Y) → (2) introduction (Y) → (3) body (Y) → (4) include and complete scoping steps (4) and (5).

The researcher further modified the above elements to: (1) population (victims participating or potential participating in limited or general NFPCS); (2) intervention (limited and general NFPCSs); (3) comparators (health service or medical service (injuries or deaths), no-fault (no fault, negligence and medical practice verdict) tort reform (traditional or nontraditional reforms: present or absent), NFPCS adoption or not, country, government and law and policy reasons; (4) outcomes (government adopted or not); (5) timing (date span 1990 – 2016), (6) Setting (country) and (7) study design (peer reviewed v. non-peer reviewed). Questions considered during step (3) include whether

or not a (1) comparator is present, (2) publication is relevant (topic and content similar or different from study), (3) publication is valid (source rating) and (4) publication is current or not.

The criteria for (4) currency of a publication on a topic vary (clinic research reviews not current (or stale) if less than 5 years). Currency for this study relies on a range of 26 years (1990-2016), because adoption of these systems is periodic and spans this time range. Limiting publications to less than 5 years could exclude relevant sources of information. If publications (or authorities) were deemed similar or same based on (1) to (3), then the most current publication (≤ 5 years) trumped the less current one (≥ 5 years). A publication greater than 5 years was included based on criteria (1) to (3) if there was a lack of similar or same articles and information or data contained in the stale article related to (1) to (3). If multiple articles contained similar content, then selection precedence defaulted to the timeliness (e.g. most recent publication) of the publication dates.

2.2. English-based keyword selection

A natural language keyword (primary English words, terms, or phrases) search routine served as the primary format for identifying literature for review. Primary keywords included: no fault, patient, compensate, medical, malpractice, victim, injury, death, limit, general, legislation, law and adopt. The initial search began with the keywords: no fault compensation medical malpractice. Different combinations of search terms were tried based on returns and elimination of terms following the modified scoping formats. If a database lacked a natural language format or failed to return items, then the investigators performed Boolean search ($N = 0$). Searches utilized a browser (Google Chrome™ or Mozilla Firefox®) and a single internet search engine Google™ (e.g. Web, Scholar and News plus News Archives) and Microsoft Bing® per query followed by use of a metasearch engine (DuckDuckGo®; $N = 0$ attempts), if either single search engine failed to return sources. Sources included legislative commentary; governmental and nongovernmental white papers; peer-reviewed articles; newspapers, scholarly, organizational blogs and proprietary legal database (Lexis Advance®) containing law reviews and journals.

2.3. Resource exclusions

The authors did not conduct a primary search for print media sources, because the goal of the chosen search methodology was rapid identification relevant sources of literature. One potential risk arising from not searching print media is loss of information or data that causes loss of relevant sources. The authors performed print media searches and review only if a source was identified electronically and available

only in a print media format. The authors also excluded articles and information on post-fault patient compensation systems (e.g. state-based catastrophic Med Mal insurance) or post-catastrophic judgment insurance schemes, because these mechanisms do not qualify as NFPCSs.

2.4. Descriptive statistical methods

The study relies on a qualitative assessment of information as a form of text mining. The factors sought included: (1) countries adopting v. not adopting, (2) injury compensation scheme (limited: legally defined injury set v. general: any and all injuries) and (3) reason for adopting or not. Because the qualitative nature of the study only descriptive statistics applied.

3. Results

3.1. Keyword-source returns

Keyword searching using natural language terms no fault or no-fault followed by inclusion of one or more primary keywords (sec. 2.2) returned 105 articles suitable for review (date ranges: 1990–1999 ($N = 6$); 2000–2009 ($N = 14$), and 2010–2016 ($N = 88$), where articles split 49.1% (53/108) peer-reviewed and 50.9% (55/108) non-peer reviewed (Legislative Responses (10); OPEdS (19); White Papers (21), and Book Chapters (5). Publication origins were Australia-New Zealand; Europe and Scandinavia; China, Japan, and ASEAN (Malaysia ($N = 2$) and Thailand ($N = 9$; 8%)); and United States ($N = 50$ or 43.4% NFPCS publications = majority of returns). Thai authors produced 9 documents (English-based) between 2006 and 2016, which coincided with policy discussions on its HSAPP during Parliamentary debates between 2007 and 2016 (English-only).

Based on the review of the literature, no-fault patient compensation systems (NFPCS) for Med Mal victims exist in 10 countries: New Zealand and Japan (Asia-Pacific region), Denmark, Finland, Iceland, Norway and Sweden (Nordic region), France and Belgium (Western Europe) and United States (US state = Virginia and Florida). [18, 23, 25] Of these countries, 6 qualify as general NFPCS ($N = 6$: New Zealand and Nordic countries ($N = 5$)) and 4 maintain a limited NFPCS (Fault-based No-Fault Schemes: France and Belgium and Birth-relate neurologic injury programs: Japan and US (Florida and Virginia). Administrative awards keyed on injuries and deaths related to treatment ($N = 1$), avoidable medical injuries ($N = 5$), avoidable medical injuries without negligence ($N = 2$) and birth-related neurologic injuries ($N = 2$). All schemes rely on the no-fault principle that links activities (driving, working, or health care) to harmful events (accident injuries or deaths). [18]

These schemes differ from legal causes of actions negligence associated with torts delict and wrongful acts. They differ because a harmed party need

not show the harming party owed a duty of care and breached it when he or she caused the injury or harm requiring compensation. [28] Thus, in theory, no-fault systems compensate without invoking blame, shame, fault or culpability often associated with torts and delict litigation. [28 – 33] While no one seems to favor litigation, western countries, such as Canada, England, Scotland (Debating) and Ireland entertained various NFPCS options as replacements for their existing civil Med Mal causes of action but none adopted one. [27, 30, 31] Thailand and 6 US states (Florida (Program Expansion), Georgia, Maine, Maryland, Montana, New Hampshire and Tennessee) also failed to adopt [12, 18 – 20, 22, 33] Based on this review, no country or US state has successfully enacted a general NFPCS similar to the New Zealand or Nordic programs, notwithstanding efforts of France (2002), Belgium (2010), and Japan (2009) to enact limited NFPCSs. [34] While theory says no-fault systems compensate without invoking blame, shame, fault or culpability often associated with torts and delict litigation or wrongful acts, apparently, countries and US states prefer not to adopt them for a variety of reasons. [29 – 32]

Critics of NFPCSs point out that their claim-inquiries often require analysis of causation that invokes culpability and fault. [29] Likewise, authors point out that health care providers worry culpability and fault may also arise when a no-fault claimant complains to a disciplinary authority, which responds with a regulatory-based inquiry into the standard or quality of care delivered by a health care provider subject to a NFPCS claim. NFPCS often require reporting by review panels if they make a determination of substandard care. So, health care providers may see litigation as a way to protect their reputation (e.g. Georgia and Tennessee Medical Associations). [33, 35]

Members in the legal profession also want retention of their negligence-based tort and delict systems, because they believe culpability, liability, and damage awards to punish health care providers for providing substandard care and harming patients. [29] Theoretically, laws in torts, delict and wrongful acts encourage health care providers to deliver safe, quality-based care by punishing unsafe care, compensating victims and deterring others from delivering unsafe, substandard care. [29, 32] Commentators also claim no-fault compensation without corrective justice mechanisms will make health care less safe, notwithstanding their potential to drive up the costs and risks for health care generally. [23] On balance, critics of NFPCSs oppose them because they believe NFPCSs undermine patient health and safety in health care.

To counter these criticisms, NFPCS proponents point out litigation in torts, delict or wrongful acts cannot (1) easily distinguish accidents from negligence, (2) fairly apportion fault-based awards, (3) easily deter substandard care and (4) consistently achieve what

patients seek—explanations and prevention. [28] Although reviewed publications favoring NFPCS cited evidence that more claimants had an opportunity to recover in a NFPCS than torts and delict or wrongful acts, they also found general and limited NFPCSs only compensated claimants when they met their administrative claims filing and processing requirements. [30] Thus, NFPCS are not compensation giveaways as demonstrated by claims acceptance and compensation rates ranging from 30 to 60 percent. Even so, there were OPED pieces from physician groups in the US [33, 34, 37, 38] and Thailand [36] opposing NFPCSs, because they believe NFPCSs might unjustly increase the amount of payouts and unfairly require them to pay for injuries and deaths they did not cause.

The same authors also cited data showing NFPCS per-claim payouts were usually lower than tort, delict and wrongful act awards that relied on administrative structures that provided periodic payments (e.g. partial payments as opposed to lump sum tort judgment awards). [18, 37] Not only does the current experience with NFPCSs suggest they address more claims at lower costs, but also they must operate as a business or insurer. So, they must maintain their financial solvency, which requires claims management and actuarial oversight. They frequently draw funds from a variety of sources that may include tax-based general revenues, levies, and investments. [28, 30] Compared to tort, delict and wrongful act laws and litigation, NFPCSs resolve claims for qualifying claimants more rapidly and efficiently, while reducing the hostilities often invoked among the parties to litigation. [18]

Claiming and payouts are minimized by an administrative process designed to receive, process, and compensate claims based on a range of criteria and amounts that range from broad to narrow. [30] Currently, New Zealand supplies the broadest cover while the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) provide immediate levels of cover, while limited NFPCS in Belgium, France, Japan and US States may cover less based on their coverage criteria. [18, 38 – 41] These coverage criteria and limitations enable them to limit payouts to a specific set of patients and injuries. [27] The current version of the Thai HSAPP may follow a similar course given its application to public health services sector and apportionments of payments. [19, 20]

3.2. Country-based NFPCS: New Zealand (2005)

Currently, New Zealand maintains the oldest, broadest, Crown-supported compensation scheme that began as an accident compensation scheme managed by the Accident Compensation Corporation (ACC) under its Injury Prevention, Rehabilitation and Compensation Act of 2001 (amended 2005). [30, 32] All New Zealanders participate, and its ACC covers accident-related injuries, including treatment, through

general taxation revenues and levies that fund six accounts. Its Treatment Injury Account (TIA) is the smallest and it draws funds from the earner and non-earner accounts, but TIA is growing due to an increase in claiming following reforms of 2005. [30] Its legal and social goals enhance the public good and reinforce its social contract to minimize the impact of personal injuries on society. This translates into citizens forgoing the right to litigate injuries. [32] In 2005, reforms replaced its medical misadventure criteria with coverage of a personal injury related to treatment. This more liberal standard potentially includes all adverse medical events, preventable and unpreventable, but there are exceptions that limit claiming. Public trust in the ACC remains high, but at least one study raises concerns for patient safety and quality after the reforms of 2005. [32] And its policymakers must continue adjusting their system to keep it solvent and safe.

3.3. *Country-based NFPCS: Nordic Countries (1975)*

Denmark, Finland, Iceland, Norway, and Sweden) are similar to New Zealand in their desire to uphold the rights of patients to compensation by making coverage broad and accessible, promoting positive relations among physicians and patients, and fostering patient safety and quality care while maintaining efficiency. [30] All rely on legislative acts for their operation, and claims do not require proof of fault or Med Mal before compensation. Denmark, Finland and Sweden utilize 'insurance associations' whereas Norway maintains an independent national body to administer compensation.

Nordic countries rely on concepts of avoidable harm or injury to award compensation. Denmark, Finland, Norway and Sweden apply an 'experienced specialist' standard to compensate avoidable injuries occurring under optimal circumstances in the care of the specialist or best provider. Both Finland and Sweden apply a 'retrospectivity rule' that considers options and treatments not taken, while Denmark opts for an 'endurability rule' to compensate injuries going beyond a level of reasonable endurance. All rules compensate injuries ranging from treatment and diagnostic injuries (majority) to unavoidable injuries, with or without special circumstances. [30] But compensation also depends on other factors, and claimants are subject to time limits for filing (3 to 5 years, Max. 10 years). Even these broad criteria result in 30 to 40 percent of claims succeeding. All Nordic systems provide an appellate process for denials and claimants retain the right to file a tort-based claim in Denmark, Finland, Norway and Sweden. Even so, very few claims go to court or appeal, and if claimants do, they rarely succeed. Both physicians and patients express satisfaction with their systems. Thus, the Nordic experience serves as a counter to physicians who criticize NFPCSs.

3.4. *Country-based NFPCS: France (2002) and Belgium (2010)*

France and Belgium maintain statutorily based NFPCS, but their administrative procedures cover a limited set of injured patients. [38] Unlike most general and limited NFPCSs, they do not exclude fault or negligence from their assessment criteria and awards. In 2002, France reformed its Med Mal compensation scheme to address an insurance crisis by instituting its fault-based version of a NFPCS. [39] The crisis arose from courts awarding more claims with higher payouts causing instability in their insurance market. Its goals were (1) compensating its most injured victims through a no-fault system funded by its the Assurance-Maladie (Health Insurance System), the pillar of the French Welfare State, (2) maintaining the standard rules of fault to punish negligent, substandard care and (3) instituting an out-of-court settlement program to offer resolution without litigating. Overall, reformation was a way to (1) reduce court proceedings against its health care providers, (2) speedup compensation, (3) offer victims free representation to reduce any social inequalities, (4) respond to public and professional criticisms of their judicial systems and (5) organize medical expertise. Although articles and data are limited, the overall response is a balance between fairness and low number of claimants, which may be lower than expected.

Belgium followed in 2010 when policymakers adopted their Compensation for Damages Resulting from Medical Care (DRMC) law, where it creates a Medical Accident Compensation Fund (MSCF) to compensate a victim of medical care if the provider is without fault. [40] The DRMC and its MSCF define a no-medical accident as "an accident linked to medical care that does not trigger the caregiver's liability, does not result from the patient's health condition, and gives rise to abnormal damage." The DRMC also confines coverage to abnormal damage, which is not related to present state of science or present or foreseeable state of a patient's medical condition. To receive payment from the (MSCF), there must be an absence of fault and grave injury as defined by the statute. If there is fault, then recovery and payouts fall to Belgian insurers and legal system. The overall effectiveness of the Belgium experience remains an open question given its short time period.

3.5. *Country-based NFPCS: US (1987: Virginia; 1988: Florida) and Japan (2009)*

The US and Japan apply similar approaches in their NFPCSs, because they focus on birth-related neurologic injuries in specified group of infants. Unlike Japan, only two US states—Virginia and Florida—maintain NFPCS. Both states enacted their programs during the "Med Mal crisis" in late 1980s. Virginia administers its Birth Injury Compensation

Program through its Workers' Compensation Commission, while Florida program works with the Florida Department of Administrative Hearings. Both programs met their goals for stabilizing Med Mal insurance markets for obstetricians and other physicians, preserving access to obstetrical care for their citizens, and removing a set of expensive Med Mal claims from their tort systems. [42, 43] They address a specific, statutorily defined set of patients—infants suffering severe birth-related neurologic injuries. [43] Admission requires a petition with all relevant clinical information for review by a panel of experts. They exclude disabilities or deaths due to congenital anomalies or genetic disorders. They share similar program designs, but their enabling statutes possess key differences for claims, claimants, and compensation. Restrictive definitions for cover act as barriers to claiming and payouts. [43] Denied claims are subject to hearings and appeal to an administrative law judge that may go to district court. Once admitted to a program, participants exclude other litigation-based remedies, unless there is a denial or the act causing a birth-related injury or death legally qualifies as grossly negligent. Their funding sources include assessments on participating health providers, levies on Med Mal insurers, state funds, and investments to finance their programs. Currently, both programs operate based on traditional business principles, where undergo audits and remain financially stable.

Like the two US states, Japan adopted its limited NFPCS through its Ministry of Health, Labor and Welfare to address its Med Mal insurance crisis similar to those in the US during the 70s and 80s. [41] Like the US states of Florida and Virginia, the Japanese NFPCS is limited to infants with suffering a birth-related injury resulting in cerebral palsy. Its support comes from the Ministry, not the hospitals, and it stabilizes the insurance market for obstetricians who deliver babies. Injuries need not be the fault of the physician and they scheme will pay almost \$400,000 USD per child for 20 years. Reporting occurs, and Japanese physicians do enjoy shielding from suits, although this report suggests payout are low. The Japanese experience appears to mirror the experience of Florida and Virginia, but these programs cutoff litigation and liability if a claim enters these programs. These programs also require reporting to state-based professional disciplinary authorities, so there is feedback and oversight too. Although there are critics who question its effectiveness.

3.6. Reasons to adopt or not adopt a NFPCS

Reasons countries may or may not a NFCS schemes vary. Why some countries and US states fail to adopt a NFPCS may lie with the presence or absence of one or more conditions. Country-based policymakers are more likely to adopt a general NFPCS when their countries possess a (1) smaller, more

socio-demographically homogeneous populations, (2) government-run health insurance systems and (3) strong social insurance safety nets. [16] The authors could not, however, analyze the above conditions due to their study design and focus on the identification of more qualitative conditions. Two conditions identified were the presence or absence of a Med Mal crisis and professional support. Publications cited the presence of Med Mal crisis due to climbing claim and payouts associated with insufficient coverage by providers as a major push factor (e.g. New Zealand, France, Japan, and US States Florida and Virginia). Thailand may also be an example of crisis given events post 2006. Even so, a Med Mal crisis may not be a sufficient condition for adoption, US states in crisis are more likely than not to opt for a traditional tort reform (e.g. award limits or expert witness requirements) rather than implement a NFPCS. [12, 18]. [20, 43] Positions of the medical and legal professions may serve may serve as positive or negative conditions depending on its impact on policymakers. [30, 43] In general, conditions unfavorable for NFPCS included: (1) concerns for fairness of compensation amount versus judicial awards, (2) fears over excessive costs (professional tax), (3) preference for traditional tort reforms (limited access to courts), and (4) resistance among professional (medical and legal) associations. In fact, physicians expressed these concerns in Thailand, where the Medical Council opposes the current version of the HSAPP. Physician fears of culpability and loss of reputation along with the specter of a rising number of claims and payouts likely encourages health care providers to either litigate or seek alternative reforms, either traditional or nontraditional. Some authors note attempts to adopt NFPCSs run amok in common law systems, especially with its trial lawyers, because many litigators believe these systems do not fairly compensate the victims or punish physicians for their substandard care. [27, 30] Thus, NFCS enactment faces obstacles at multiple levels, regardless of the country or type of scheme.

3.7. Study Limitation Review

This study possesses several limitations even though the cited literature supports the applied methodology. [24 – 26] Because the authors employed a modified scoping to rapidly identify publications, the potential loss of relevant publications and their information and data. [24, 25] A related limitation may be the use of keyword search methodology that required modification of terms. Term modification may lead to loss of relevant publications. This study is also limited by its reliance on the use of English-based, electronic publications and its qualitative review, which potentially relevant non-English publication were excluded, unless an English translation was captured. It also lacks a formal country-based comparison, which means inferences or generalizations among countries

may not be possible.

4. Conclusion

Ultimately, adverse events and medical errors are a global concern, and they may injure and kill more patients than reported in past or current studies. [9, 10] Fortunately, most of them are not the result from substandard care nor do they trigger Med Mal claims or litigation. [10, 11] When they do, they may exact a price from health and legal systems, alike. For health care providers, especially physicians, Med Mal actions may hurt their professional and patient relationships and encourage them to practice defensive medicine, real or not. [11, 12] Support for Med Mal litigation and litigation reforms persists worldwide, although governments, policymakers, professionals would like a more efficient, cost-effective mechanism to fairly compensate victims and reduce or eliminate unsafe medical care than civil litigation. [13] Based on this study, the reviewed authors support replacing litigation with a NFPCS similar to the Nordic or New Zealand programs, whereas others opposed them because they saw wrongful acts or torts as mechanism to encourage safe care and fair compensation for injuries and deaths related to substandard, unsafe care. [29, 32]

Perhaps, the underlying reason for support of NFPCS by some academics and policymakers may be the evidence in the literature shows NFPCSs compensate victims more rapidly, fairly, and efficiently at lower costs than litigation. [18, 30, 37] But most governments, including Thailand do not adopt them for a variety of reasons. [18] One reason for the lack of adoption identified by this modified scoping review was opposition from professional groups, especially medical associations or councils. Authors reported policymakers were swayed by professional groups who threatened to limit or stop caring for patients. [41] To overcome the inertia against passage and change, it may take more than a major liability crisis to achieve adoption. In fact, it may require the absence of unfavorable conditions identified by authorities reviewed in this study, which included (1) concerns for fairness of compensation amount versus judicial awards, (2) fears over excessive costs (professional tax), (3) preference for traditional tort reforms (limited access to courts) and (4) resistance among professional (medical and legal) associations. It should be no surprise these conditions existed beginning with Thai policymakers first efforts to pass their Law on Health Service Affected Person Protection (HSAPP). [18] It continues to face opposition.

What remains unclear is whether Thailand and its physicians face a Med Mal crisis in both their public and private sectors. It is also uncertain whether Thai physicians have insufficient liability coverage to constitute a claims and payouts problem. Without more,

conditions may be suboptimal and there may be little interest in opting for a paradigm shift from the current status quo to either a general or limited NFPCS in Thailand or any other country or US state. Only time will tell if Thailand will enact its Law on Health Service Affected Person Protection (HSAPP) to establish a NFPCS or not.

References

- [1] B. S. Bal, An introduction to medical malpractice in the United States, *Clin. Orthop. Relat Res.* 467 (2009) 339–347.
- [2] A. S. Babu, M. L. Brooks, The medical malpractice liability of radiology reports: Minimizing the risks. *RadioGraphics* 35 (2015) 547–554.
- [3] A. D. G. Pereira, Medical liability: comparing ‘civil law’ with ‘common law’, In: Beran RG, editor, *Legal and forensic medicine*. Berlin, Germany: Springer (2013).
- [4] N. Cortez, Medical malpractice model for developing countries, *Drexel L. Rev.* 4 (2011) 218–241.
- [5] Y. C. Chee, Do no harm: do thyself no harm, *Singapore Med. J.* 46 (2005) 667–674.
- [6] S. De Guzman, The dilemma that our medical practitioners face today, *The Philippine Star*, Available online in: Jul 3, 2019, Available from: www.philstar.com/opinion/2012-11-26/873497/dilemma-our-practitioners-face-today
- [7] S. N. Hambali, S. Khodapanahandeh, A review of medical malpractice issues in Malaysia under tort litigation system, *Glob. J. Health Sci.* 4 (2014) 76–83.
- [8] T. T. Bui, T. Mirzoev, R. Morgan, Patient complaints in health-care services in Vietnam’s health system, *SAGE Open Med.* 3 (2015) 1–9.
- [9] A. K. Jha, *et al.* The global burden of unsafe medical care: analytical modeling of observational modeling, *BJM Saf. Qual.* 22 (2013) 809–815.
- [10] F. Obeyode, Clinical errors and medical negligence, *Med. Princ. Pract.* 22 (2013) 323–332.
- [11] D. Hyman, C. Silver, Five myths of medical malpractice, *Chest.* 143 (2013) 223–224.
- [12] M. Mello, The medical liability climate and the prospects for reform, *JAMA.* 312 (2014) 146–155.
- [13] D. Hyman, C. Silver, Medical malpractice and compensation in global perspective: how does the U.S. do it. *Chi-Kent L. R.* 87 (2012) 163–198.
- [14] H. Morton, Medical liability and medical malpractice laws, National Conference of State Legislators, Available online in: Jul, 2019, Available from: www.ncsl.org/research/financial-services-and-commerce/medical-liability-medicalmalpractice-laws.aspx
- [15] Health Resources and Services Administration. National Vaccine Injury Compensation Program, Available online in: Jul 3, 2019, Available from: <https://www.hrsa.gov/vaccine-compensation/index.html>
- [16] C. Kelly, C. Mello, Are medical malpractice caps constitutional? An overview of state litigation, *J. Law Med. Ethics.* 33 (2005) 515–534.
- [17] J. M. Eggen, Medical malpractice screening panels: An update and assessment, *J. Health Lf. Sci. Law.* 6 (2013) 3–34.
- [18] M. Mello, A. Kachalia, D. Studdert, Administrative compensation for medical injuries: lessons from three countries, *Common Wealth Fund.* 14 (2011) 1–16.
- [19] Health Info in Thailand, Medical malpractice victims’ protection bill meets opposition from doctors, *Health Issues* 10 (2011) 59–63.
- [20] P. Kongvichienchep, The Beginning step of a no-fault compensation for medical errors in Thailand, National Health Commission Office: Thailand, Story of the Month, Available online in: Jul 7, 2019, Available from: <https://en.nationalhealth.or.th/the-beginning-step-of-a-no-fault-compensation-for-medical-errors-in-thailand/>

- [21] E. Renkema, M. Broekhuis, K. Ahaus, Conditions that influence the impact of malpractice litigation risk on physicians' behavior regarding patient safety, *BMC Health Serv. Res.* 14 (2014) 1–6.
- [22] Law on Public Health Service Affected Person Protection, Consumer Protection Reform Committee, National Reform Council (NRC), approved on July 29, 2015.
- [23] E. Gibson, Is it time to adopt a no-fault scheme to compensate injured patients, *Ottawa L. Rev.* Available online in: Jul 7, 2019, Available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2744432&download=yes
- [24] D. Levac, H. Colquhoun, O'Brien K. Scoping studies: advancing the methodology, *IS 2010*, Available online in: Jul 3, 2019, Available from: <https://implementationscience.biomedcentral.com/track/pdf/10.1186/1748-5908-5-69>
- [25] R. Cardoso, *et al.*, Rapid Scoping Review of Medical Malpractice Policies in Obstetrics, WHO Rep, Knowledge Translation Services, Li Ka Shing Knowledge Institute, St. Michaels Hosp, Available online in: Jul 7, 2019, Available from: www.afro.who.int/en/south-africa-publications.html
- [26] A. M. Abou-Setta, *et al.*, Methods for developing evidence reviews in short periods of time: a scoping review. *PLOS One*. 12 (2017) 1-16.
- [27] M. Thompson, *at. al.*, A Framework to facilitate the use of systematic reviews and meta-analyses in the design of primary research studies, *AHRQ*; P No: 12-EHC009-EF, Available online in: Jul 3, 2019, Available from www.ncbi.nlm.nih.gov/books/NBK83621/pdf
- [28] A. Farrell, No-fault compensation for medical injury: principles, practices, and prospects for reform. In: Ferguson P, Laurie G. editors. *Inspiring a medico-legal revolution: essays in honour of Sheila McLean*, New York, United States: Routledge, (2015).
- [29] V. Raposo, How can Asian countries deal with medical liability and patient compensation?. *People IJSS*. 1 (2015) 942–956.
- [30] A. Farrell, S. Davey, A. Dar, No-fault compensation schemes: a review, Interim Report; Scottish Government Social Research, Available online in: Jul 3, 2019, Available from: <http://www.gov.scot/Resource/0039/4407.pdf>
- [31] C. Look, H. Kelly, No-fault compensation following adverse events to vaccination: a review of national programs, *Bull World Health Org.* 89 (2011) 371–378.
- [32] K. Wallis, New Zealand's 'no-fault' compensation reforms and medical professional accountability for harms, *NZ Med J.* 126 (2013) 33–44.
- [33] S. Edwards, Patient Compensation Legislation in Tennessee, State Volunteer Mutual Insurance Company, Available online in: Jul 7, 2019, Available from: http://www.svmic.com/Home/media/29719/svmic-sentinel-pcs-legislation-in-tennessee_april-2016.pdf
- [34] S. Forray, C. Flemming, E. Wunder, Tort overhaul: patient compensation system legislation raises more questions than answers, *Inside Med. Liab.* (2014) 28–31.
- [35] T. Parks, How medical liability reforms will be advanced, challenged in 2016, *AMA Wire*, Available online in: Jul 3, 2019, Available from: <https://wire.ama-assn.org/practicemangement/how-medical-liability-reforms-will-be-advanced-challenged-2016>
- [36] N. Wongsamuth, Operating within lawsuits, *Bangkok Post*, Available online in: Jul 3, 2019, Available from: <http://www.bangkokpost.com/print/993149/>
- [37] D. M. Studdert, No-fault compensation for medical injuries: The prospect for intervention, *JAMA*. 268 (2001) 217–223.
- [38] T. Vandersteegen, *et al.*, The impact of no-fault compensation on health care expenditures: An empirical study of OECD countries, *Health Policy* 119 (2015) 367–374.
- [39] J. Barbota, *et al.*, No-fault compensation for victims of medical injuries, Ten years of implementing the French model, *Health Policy* 114 (2014) 236–245.
- [40] N. Atwill, Belgium: New law on Compensation of Victims of No-Fault Medical Accidents. *Global Legal Monitor*, Library of Congress, Available online in: Jul 3, 2019, Available from: <http://www.loc.gov/law/foreignnews/article/belgium-new-law-on-compensation-of-victims-of-no-fault-medical-accidents/>
- [41] N. Akimoto, Towards a no-fault compensation system for medical accidents in Japan, *Global Leadership Visions Series, Op-Ed Essays, Law & Politics McDonnell International Scholars Academy*, Available online in: Jul 3, 2013, Available from: <https://sites.wustl.edu/mcdonnell/files/2015/07/Naoko-Akimoto-2la5wyt.pdf>
- [42] K. Dickson, *et al.*, No-fault Compensation Schemes, Dept. of Health Reviews Facility (U.K.), Available online in: Jul 7, 2019, Available from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/595817/RRR_Dickson_et_al_2016_No-Fault-Compensation-Schemes_a.pdf
- [43] A. Alexander, U.S. Medical Malpractice: State-Based No-Fault Compensation Schemes, *Thammasat L. J.* 45 (2016).