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AN EMPIRICAL STUDY OF PAIN AND SUFFERING AWARDS IN CHINESE PERSONAL INJURY CASES

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Drawing on 1,882 personal injury lawsuits involving medical negligence, this study presents the first empirical analysis of pain and suffering awards given by Chinese judges in the real-world setting of personal injury litigation. It investigates when judges refuse to award pain and suffering damages in personal injury cases, and whether the relevant guiding factors suggested by the Supreme People' s Court have a significant influence on award amounts of pain and suffering damages, as well as whether the deep pockets effect and the anchoring effect exist in Chinese personal injury litigation. We find that Chinese judges are more likely to refuse to award pain and suffering damages in cases where the plaintiff suffers minor injuries and a lesser amount of economic damages and where the plaintiff has not claimed pain and suffering damages. We further uncover that the injury severity, the economic damages and the causal contribution of the defendant' s negligence have a significant and positive influence on award amounts of pain and suffering damages in personal injury litigation. However, this study does not find any evidence supporting the deep pockets effect and the anchoring effect in Chinese personal injury lawsuits.

1. Introduction

In both common law and civil law legal systems, pain and suffering damages are a common head of damages awarded in personal injury lawsuits to compensate for a victim' s physical pain, emotional distress, and loss of amenity and enjoyment of life resulting from a personal injury. Due to the significant judicial discretion exercised in quantifying such non-economic damages, the judicial assessment of pain and suffering damages has been questioned and criticised for having a lack of fairness, consistency and predictability.1 However, robust empirical evidence ***1194*** remains important for checking whether and to what extent the above concerns are well founded. Some researchers suggest a scheduling model based on the injury severity and age of the victim to improve the consistency and predictability of pain and suffering award amounts and rein in judicial discretion in personal injury cases;2 yet, is it possible that judges have already considered such factors when quantifying pain and suffering damages and have even adopted a de facto scheduling model based on certain factors? The answers to these questions are of both statistical and legal value.

Empirical studies of jurors' or judges' quantification of pain and suffering damages for personal injury have been conducted in common law and civil law jurisdictions. These previous studies have tested a number of factors that may affect award amounts of noneconomic damages: (1) the nature and severity of the victim' s personal injury,3 (2) the age and gender of the victim,4 (3) the economic damages5 and medical expenses,6 (4) the degree of fault of the defendant,7 (5) the financial ability of the defendant,8 (6) the comparative negligence of the victim,9 (7) the plaintiffs' ad damnum as anchor,10 (8) the level of the court,11 (9) the victim' s access to a lawyer,12 (10) the evaluation approach (lump-sum v ***1195*** per-diem)13 and (11) the prior-award information.14 However, there has been no empirical study of the judicial assessment of pain and suffering damages in personal injury litigation in China, a civil law country with unique characteristics.

To fill the gap, by drawing on 1,882 personal injury cases involving medical negligence decided in 2016, this article presents the first empirical analysis of pain and suffering awards given by Chinese judges in the real-world setting of personal injury litigation. This study aims to investigate four research questions. First, when do judges refuse to award pain and suffering damages in personal injury cases? Second, do the injury severity, the awarded economic damages, the comparative negligence and the living standards of the court' s locality affect award amounts of pain and suffering damages for personal injury? Third, to test the deep pockets theory, do the number and financial ability of defendants matter to the amount of pain and suffering awards? Fourth, to test the anchoring effect theory, does the plaintiffs' ad damnum have a significant impact on pain and suffering awards in personal injury litigation?

This study finds that Chinese judges are more likely to refuse to award pain and suffering damages in cases where the plaintiff suffers minor injuries and a lesser amount of economic damages and where he has not claimed pain and suffering damages. In terms of quantifying pain and suffering damages, the injury severity, the economic damages and the causal contribution of the defendant' s negligence have a significant and positive influence on award amounts in personal injury litigation. Moreover, it does not find any evidence supporting the deep pockets effect and the anchoring effect in Chinese personal injury lawsuits. The findings

of this study will not only enrich the general socio-legal discourse on the quantification of noneconomic damages for personal injury by adding the Chinese perspective, but also provide empirical evidence to disprove capricious and unpredictable pain and suffering awards in the setting of Chinese personal injury litigation. Practically, they will also offer insights to Chinese lawmakers to improve the law of pain and suffering damages.

This article consists of six parts. Part 2 discusses how to understand and measure the relevant factors that may affect pain and suffering awards in personal injury cases involving medical negligence under the ***1196** Chinese law. It also elaborates the four research questions as noted above. Part 3 explains the data and method used in this study. Part 4 presents the empirical findings regarding the research questions, and Part 5 then discusses the findings. Part 6 concludes the article.

2. Guiding Factors and Research Questions

(a) Guiding Factors for Assessing Pain and Suffering Damages for Personal Injury in China

Chinese law has recognised pain and suffering damages since 1993.15 They were first available in defamation cases and later expanded to the infringement of personality rights cases.16 China's Tort Liability Law and Civil Code formally affirmed pain and suffering damages as a head of damages available in tort actions respectively in 2009 and 2020.17 In other words, it was the highest judicial authority, that is the Supreme People's Court (SPC), which introduced and developed the relevant rules through judicial interpretations prior to the endorsement of the national legislature, that is the National People's Congress and its Standing Committee.

As provided by art 1183(1) of the Civil Code, which has incorporated art 22 of the Tort Liability Law, where an infringement upon the personal rights and interests of a natural person causes serious mental distress thereto, the infringed person has the right to claim compensation for pain and suffering caused. Moreover, art 1183(2) of the Civil Code further provides that pain and suffering damages can be claimed by a victim whose object of personal significance is infringed by an intentional act or gross negligence of a tortfeasor. In addition to economic damages, pain and suffering damages are frequently claimed and awarded in personal injury lawsuits where the victim suffers serious mental distress due to the ***1197** infringement of his right to health (as a specific type of personal right) by an intentional act or negligence of the defendant.18

Chinese law neither caps pain and suffering awards nor adopts any scheduling model to quantify them. Instead, judges exercise great discretion to decide whether to award pain and suffering damages and what is an appropriate amount of pain and suffering damages to be awarded on a case-by-case basis. The SPC requires lower courts to take into account seven guiding factors when assessing pain and suffering damages and deciding award amounts.19 These factors include (1) the fault of the tortfeasor (ie intentional act or negligence); (2) the means,20 occasion and manner of the infringement; (3) the consequence of the infringement; (4) the profit gained by the tortfeasor; (5) the financial ability of the tortfeasor; (6) the living standards of the court's locality; and (7) the degree of fault of the victim. Despite the intention of the above guiding factors to rein in the judicial discretion of lower courts, it is unclear whether this has been achieved in reality.

Table 1 presents a comparison of factors affecting pain and suffering awards between Chinese law and the previous empirical studies conducted in other jurisdictions. All listed factors are relevant to the assessment of pain and suffering damages for personal injury. Because pain and suffering awards are always calculated on a lump sum basis in China,21 the factor "the per-diem or lump-sum evaluation scheme" does not apply to the Chinese context. Moreover, Chinese judges are not bound to take account of prior-award information in previous similar cases when determining the amount of pain and suffering awards; hence, the factor "prior-award information" is irrelevant in China's context.

***1198** **Table 1: Comparison of Factors Affecting Pain and Suffering Awards for Personal Injury between Chinese Law and Previous Empirical Studies**

Factors		Chinese law	Empirical studies
The consequence of the infringement	The nature and severity of injury	√	√
	The amount of economic damages		√
	The age of the victim		√
The comparative negligence of the victim		√	√
The plaintiff's access to lawyer			√
The plaintiff's ad damnum			√
The fault of the tortfeasor		√	√

The means/purpose, occasion and manner of the infringement	√	
The profit gained by the tortfeasor	√	
The financial ability/wealth of the tortfeasor	√	√
The living standards of the court's locality	√	
The per-diem or lump sum evaluation scheme		√
The prior-award information		√
The level of court		√

(b) Research Questions and Hypotheses

Focusing on Chinese judicial awards of pain and suffering damages for personal injury caused by medical negligence, this empirical study investigates the following four research questions, as elaborated below.

(i) Research question one: when do judges refuse to award pain and suffering damages?

As provided by art 1183(1) of the Civil Code, Chinese law sets a statutory threshold of "serious mental distress" for judicial awarding of pain and suffering damages in cases where the defendant has been found to be tortiously liable. This echoes the SPC's requirement that the pain and suffering damages should be available only when the tort victim has suffered "serious consequences".22 In other words, judges can refuse a victim's ***1199** claim for pain and suffering damages on the grounds that he has suffered non-serious mental distress from personal injury. However, it is unclear how judges apply this legal threshold in reality and what are the relevant factors that they normally consider in assessing the degree of seriousness of mental distress incurred. This study thus sets the first hypothesis as follows: the injury severity, the economic damages, the comparative negligence and whether the plaintiff has claimed pain and suffering damages will significantly affect the judicial decision in terms of whether or not to award pain and suffering damages in Chinese personal injury litigation.

(ii) Research question two: do the guiding factors matter to award amounts?

As noted above, the SPC requires lower courts to consider seven factors for assessing pain and suffering damages in tort actions. Because our dataset only includes personal injury cases involving medical negligence, not all guiding factors are relevant to this discussion. The factors "the fault of the tortfeasor" and "the profit gained by the tortfeasor" do not apply to the context because medical negligence cases are homogeneous in terms of the fault of the tortfeasor, and defendants therein do not profit from the tort. Moreover, although the factor "the means, occasion and manner of the infringement" is relevant to medical negligence cases, it is too broad to quantify. Therefore, this study focuses on the following four guiding factors: (1) the consequence of the infringement, (2) the comparative negligence of the victim, (3) the living standards of the court's locality, and (4) the financial ability of the tortfeasor.

As Table 1 shows, the guiding factor "the consequence of the infringement" may include the following sub-factors: the injury severity, the economic damages, and the age of the victim. Although they are all quantifiable and relevant to personal injury cases, this study excludes the sub-factor "the age of the victim" because most adjudication decisions in our database do not specify the age of the victim, and, therefore, there would be too many cases with missing information about the victim's age had we included this sub-factor. In terms of the sub-factor "the injury severity", the Classification Criteria of Medical Malpractice (Interim) divide personal injuries caused by medical negligence into 10 grades23 in addition to so-called "other injuries" which are less severe than Grade X (Appendix 1). Because pain and suffering damages refer to the victim's physical pain, emotional distress, and loss of amenity and enjoyment of life caused by a personal injury that he incurs, the injury severity is ***1200** highly likely to have an impact on the amount of the pain and suffering award. As for the sub-factor "the economic damages" for personal injury, according to art 1179 of the Civil Code, which has incorporated art 16 of the Tort Liability Law, they include medical expenses, lost income, nursing expenses, transportation expenses, nutrition expenses, food subsidies for hospitalisation, other reasonable expenses for treatment and rehabilitation, the costs of auxiliary equipment, and disability compensation (残疾赔偿金). The Chinese-characteristic head of damages "disability compensation" accounts for a substantial portion of economic damages for personal injury because it aims to compensate the victim's reduced earning capacity. It is calculated on the basis of a standardised tariff as follows: (1) when the victim is aged 60 or under, it is the previous year's per capita disposable income of urban residents in the locality of the court × the index of injury severity × the index of causal contribution of the defendant's negligence × twenty; (2) when the victim is between 60 and 75 (inclusive), the multiplier of "twenty times" is changed to the difference between 80 and his age at the time of the tort; (3) when the victim is older than 75, that multiplier is fixed at five times.24 Hence, the calculation of disability compensation, to some extent, incorporates the age of the victim. As previous research shows,25 economic

damages reflect the extent to which the victim relies on medical treatment and care, loses earning capacity, and sustains increased financial burdens due to the personal injury, and therefore economic damages are likely to have a significant influence on judicial assessment of pain and suffering damages.

The guiding factor "the comparative negligence of the victim" is transformed into "the degree of causal contribution" or "the degree of causal potency" in medical negligence cases. It means the extent to which, among several causes, the defendant's negligence contributes to the damages sustained by the victim under Chinese medical negligence law.26 In other words, the degree of causal contribution also reflects to what extent the causes on the part of the victim contribute to his own damages — these causes are not limited to contributory negligence and may also include other non-negligence causes on the victim's side ***1201** (eg disease). Chinese judges apportion both economic and noneconomic damages between the parties to medical negligence disputes according to the ascertained degree of causal contribution. Therefore, the degree of causal contribution is highly likely to affect the amount of pain and suffering awards for personal injury.

The guiding factor "the living standards of the court's locality" shows that pain and suffering damages are assessed in the light of the purchasing power or the value of money where the court is located. Because art 21 of the Civil Procedure Law grants jurisdiction to the court of the place of domicile of the defendant, the locality of the court is normally the same as the locality of the defendant.27 Due to the economic diversity of the various provinces of the country, it is highly likely that the courts will consider the living standards of its locality when assessing pain and suffering damages for personal injury.

Another guiding factor, "the financial ability of the tortfeasor", will be discussed in relation to the third research question explained below. Therefore, in terms of the second research question, this study sets the second hypothesis as follows: the following four guiding factors that the SPC requires lower courts to consider will significantly affect the award amount of pain and suffering damages in personal injury cases — the injury severity, the economic damages, the causal contribution of the defendant's negligence, and the living standards of the court's locality.

(iii) Research question three: the deep pockets theory

As the deep pockets theory argues, juries and judges are more likely to find liability and award more compensation for damages when tort cases involve deep-pocketed defendants.28 Vidmar tested whether jurors are biased against doctors and hospitals that have deep pockets in terms of an expectation of increased levels of compensation in personal injury cases, but found no supporting evidence for a deep pockets effect.29 Chang *et al.*, from an opposite perspective (ie shallow pockets), found that Taiwanese judges limit the amount of pain and suffering damages in order not to place individual defendants in financial hardship in wrongful death cases.30 As noted above, the SPC requires lower courts to consider "the ***1202** financial ability of the tortfeasor" when assessing pain and suffering damages. Therefore, this study sets the third hypothesis as follows: the greater the financial ability of the defendant, the higher the probability of compensating pain and suffering damages and the higher the amount of pain and suffering damages are awarded in personal injury cases. Because some cases involve multiple defendants, this study also conjectures that the greater the number of defendants there is, the higher the amount of pain and suffering damages is awarded for personal injury.

(iv) Research question four: the anchoring effect theory

The anchoring effect refers to a cognitive bias that individuals have, in which they tend to use an initial piece of information offered (ie the "anchor") to make subsequent decisions or judgments. The anchor may induce people to seriously consider the possibility that the real value is similar to the anchor, thus leading them to adjust their estimates upward or downward towards the anchor.31 Regarding the plaintiffs' ad damnum, empirical evidence has shown that there is an anchoring effect of the plaintiff's claim on judicial awards.32 Given the great discretion that Chinese judges have in quantifying pain and suffering damages for personal injury, they may treat the plaintiffs' ad damnum as an anchor as well, although the possibility that the victim may claim an unreasonably high amount of noneconomic damages is low because the litigation fee that they have to pay in advance will increase with their ad damnum.33 Therefore, this study sets the fourth hypothesis, that is the greater the pain and suffering damages are claimed by plaintiffs, the greater the pain and suffering damages will be awarded by judges in personal injury cases.

3. Data and Method

(a) Data Collection

The documents of adjudication decisions (裁判文书, "the DAD") database established for this study were from the SPC's official online database ***1203** called "China Adjudication Decisions Online" (中国裁判文书网).34 According to the Provisions of the SPC on Online Publication of Judgments by the People's Courts, since 1 January 2014, all Chinese courts have been required to upload adjudication decisions to this database except those cases involving state secrets, business secrets, privacy issues, adolescent criminals, divorce and support and custody of minors.35 Medical negligence cases do not fall into the category of exceptional cases, so in theory all adjudication decisions of medical negligence cases are published and accessible at "China Adjudication Decisions Online".

The DAD of medical negligence cases involving personal injury used in this study were collected through three steps. First, in order to avoid sample bias and establish a complete DAD database, the authors searched nationwide judgments of medical negligence cases published in "China Adjudication Decisions Online" as of 30 October 2017, with the cause of action "medical negligence liability" (医疗损害责任) as stipulated in the Provisions on the Cause of Action of Civil Cases.[36]

In the second step, we limited the adjudication year to 2016 in order to establish a one-year full dataset of medical negligence judgments with a manageable scale. The reason for choosing 2016 was two-fold. As of 30 October 2017, we searched and found that the number of first-instance medical negligence cases was 3,093 in 2014, 3,416 in 2015 and 3,769 in 2016, showing that the case numbers increased annually by 10 per cent from 2014 to 2016. The 2016 dataset thus presented a large number of medical negligence cases available in recent years. Moreover, the uniform rule on causal contribution was not established by the Tort Liability Law in 2009, but was subsequently introduced by the local judiciary after the implementation of the law[37] and ultimately endorsed by the SPC in 2017.[38] By the end of 2015, most local courts had adopted the uniform rule on causal contribution, and the 2016 dataset therefore better serves the purpose of this research. However, it is common for Chinese courts to delay uploading adjudication decisions to "China Adjudication Decisions ***1204** Online" .[39] Compared to the search results on judgments of medical negligence cases in 2016, as of 31 December 2018, this DAD database covered 57.19 per cent of 5,823 first-instance cases, 7.16 per cent of 3,130 appeal cases, and 60.75 per cent of 107 retrial cases.[40]

In the third step, after reading the selected cases, we then limited the DAD of medical negligence cases to those involving personal injury of patients as the intention of this research is to investigate pain and suffering awards in personal injury litigation. Because some adjudication decisions were mistakenly uploaded a number of times by the courts to "China Adjudication Decisions Online", duplicated cases were deleted before data processing.

In terms of data processing, we first removed 370 cases where the plaintiffs received neither an economic award nor a pain and suffering award. In other words, the plaintiff side lost litigation in these cases, and the success rate of medical negligence lawsuits involving personal injury was about 80 per cent. We then deleted 24 cases with the missing information on the amount of the pain and suffering award. Ultimately, the DAD database used in this study included 1,882 successful medical negligence cases involving personal injury. These cases were coded into 1,882 observations (one case, one observation).

(b) Variable Measurement and Methods

In this study, we developed a coding scheme and trained two independent coders to undertake coding and content analysis. The inter-coder reliability, measured by Cohen's Kappa,[41] was 0.824.[42]

The dependent variable is the amount of the pain and suffering award (PS) of individual cases. As Figure 1a shows, the distribution of the actual amounts of the pain and suffering awards for personal injury is skewed. Hence, a log transformation was needed in order to increase the normality. As Figure 1b shows, the log-transformed pain and suffering awards exhibit a bell-shaped distribution.

***1205** **Figure 1a: Distribution of Original Pain and Suffering Awards**

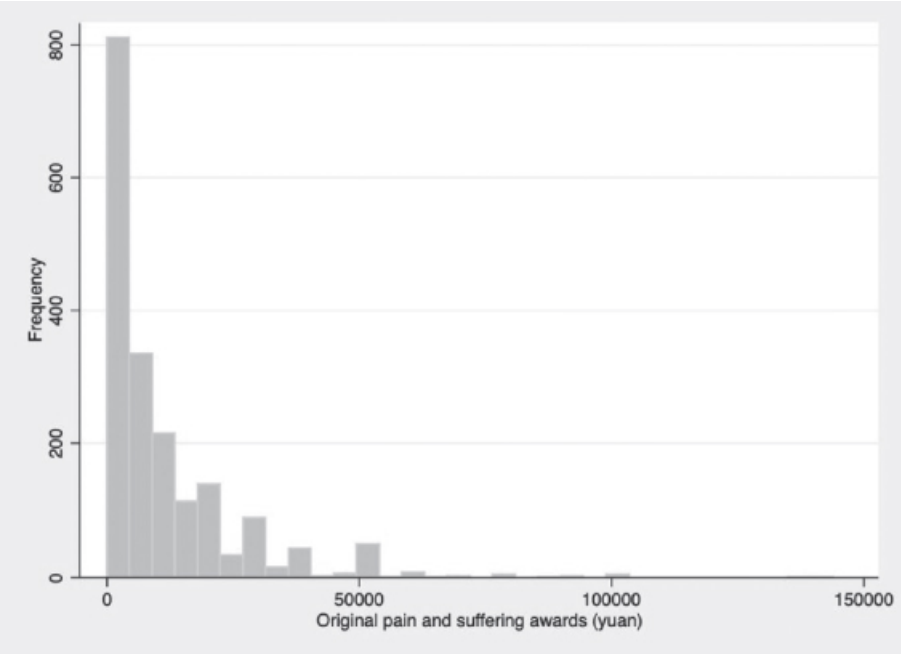
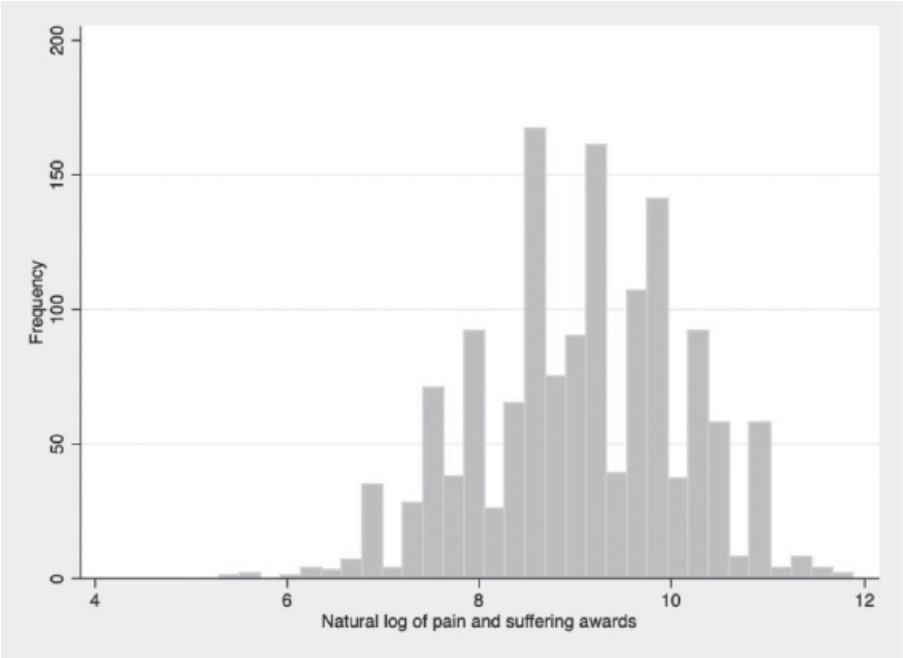


Figure 1b: Distribution of Log-Transformed Pain and Suffering Awards



1206 The first independent variable is the *injury severity* (IS). This variable was directly coded from the adjudication decisions as both expert witnesses and judges classified the degree of severity of the personal injury concerned according to the Classification Criteria of Medical Malpractice (Interim).[43] We then recoded them into three categories: severe, moderate and minor injury. The category of minor injury included 443 cases (23.54 per cent) labelled as "other injuries" (Appendix 1). We also coded 270 cases (14.35 per cent) with missing information on the injury severity as the fourth category: unknown injury severity.

The second independent variable is the amount of awarded economic damages (ECO). This variable was directly coded from the adjudication decisions. As there were 23 cases with missing information on economic awards, we replaced the missing data with the mean value of the economic awards (170,105.5 yuan). We then log-transformed the actual amount of economic awards to improve the normality.

The third independent variable is the degree of causal contribution of the defendant's negligence (CON).[44] This variable was directly coded from the adjudication decisions on the basis of the court's determination of the degree of causal contribution of the defendant's negligence. This study coded the causal contribution from 0 to 5 (Appendix 2). We replaced the missing information on the causal contribution in 215 cases (11.32 per cent) with the mean value of the causal contribution (3.04).

The fourth independent variable is the living standards of the court's locality (GDP). The court's locality was directly coded from the adjudication decisions. Because it was practically difficult to obtain the statistical data on the living standards of all cities where the courts were located, this study relied on the data on GDP per capita of provinces where the courts were situated to represent the living standards of the court's locality, although it is true that the living standards of different localities in the same province may vary from city to city. As all cases included in the DAD database were adjudicated in 2016, Chinese provinces' 2016 GDP per capita data were used.[45] We then log-transformed the GDP per capita in the analysis.

1207 The fifth independent variable is the *number of defendants* (HN). This variable was directly coded from the adjudication decisions with 1 for only one defendant and 2 for more than one defendant in the case.

The sixth independent variable is the *financial ability of the defendant* (HL). This study made use of the level of the hospital as a proxy measure to represent the financial ability of the defendant hospital, that is a hospital with a higher level was presumed to have greater financial ability to pay damages.[46] Because the third-level hospitals are the strongest health care providers in terms of the number of hospital beds, the size and number of health care personnel, the regional coverage of medical care service and the level of medical technologies and equipment used, the third-level hospitals are presumed to have much greater financial ability to pay damages than the first-level and second-level hospitals as well as health centres and private clinics. Hence, the original coding for hospital level was recoded as a dummy variable: third-level hospitals and non-third-level hospitals.

The seventh independent variable is the amount of the claimed pain and suffering damages (CLAIM), which was directly coded from the adjudication decisions. Due to the missing data (515 out of 1,882 observations) and the necessity to conduct regression analysis of the claimed pain and suffering damages, we dropped the missing data and then log-transformed the original claimed pain and suffering damage in the analysis.

(c) Model Justifications

In the first part of our empirical study, we tested whether the identified independent variables might significantly impact the probability of receiving pain and suffering damages in successful personal injury lawsuits by applying binary logistic regression. We then divided all the 1,882 cases into two categories according to whether the court awarded pain ***1208*** and suffering damages or not (1 = awarded pain and

suffering damages; 0 = refused to award pain and suffering damages). In total, there are 454 cases where the court awarded economic damages but refused to award pain and suffering damages to the plaintiff. The logistic regression model can be written in the following way.47

$$P = \frac{exp(a + b_1\chi_1 + b_2\chi_2 + \cdots + b_n\chi_n)}{1 + exp(a + b_1\chi_1 + b_2\chi_2 + \cdots + b_n\chi_n)} \quad (1)$$

In the second part of our empirical analysis, to investigate the relationship between the dependent variable and the other seven independent variables, we employed a structural equation model. Notably, the amount of the claimed pain and suffering damages (CLAIM) was added in both Equations (2) and (3) to control the endogeneity problems. Moreover, the amount of awarded economic damages (ECO) was not included in Equation (3) because the plaintiffs could not have known the amount of economic award by the time of claiming the pain and suffering damages in their pleading. Thus, the structural equation model takes the following form:

$$PS_w = \alpha_0 + \alpha_1 IS + \alpha_2 ECO + \alpha_3 CON + \alpha_4 GDP + \alpha_5 HN + \alpha_6 HL + \alpha_7 CLAIM + \varepsilon \quad (2)$$

$$CLAIM = \beta_0 + \beta_1 IS + \beta_2 CON + \beta_3 HN + \beta_4 HL + \beta_5 GDP + \varepsilon \quad (3)$$

4. Results

(a) Descriptive Analysis

As Table 2 shows, among all 1,882 personal injury cases involving medical negligence decided in 2016, the mean of the pain and suffering awards is around 10,811.18 *yuan* (SD = 14,791.89), while the mean of the logged pain and suffering awards is around e 9.05 ≈ 8,158.53 yuan (SD = e 1.06). Specifically, the mean of pain and suffering awards in cases where the plaintiffs who claimed a certain amount of pain and suffering damages is around 11,118.86 *yuan*. By contrast, the mean of pain and suffering awards in cases where the plaintiffs claimed 0 *yuan* or did not claim pain and suffering damages is around 10,228.02 *yuan*. The difference in terms of the amount of pain and suffering awards between the two groups is insignificant (t (1880) = 1.24, p > .05).

1209 **Table 2: Descriptive Summary of Personal Injury Cases Involving Medical Negligence**

			Overall cases (N = 1882)	**With P & S, awards (N = 1428)**	**Without P & S awards (N = 454)**	Comparison testa
Virables	**Min**	**Max**	**Mean (S.D.)**	**Mean (S.D.)**	**Mean (S.D.)**	
Original pain and suffering awards (*yuan*)	0	144,000	10,811.18 (14,791.89)	14,248.35 (15,472.65)	0	34.80 ***
Logged pain and suffering awards	5.30	11.88	9.06 (1.06)	9.06 (1.06)	/	/
Injury severity	1	4				
-Severe			16.15%	19.40%	5.95%	165.58 ***
-Moderate			20.83%	25.21%	7.05%	
-Minor			48.67%	44.61%	61.45%	
-Unknown			14.35%	10.78%	25.55%	
Original economic awards (*yuan*)	0	26,68,060	170,177.9 (265,061)	203,141.6 (291,175.9)	66,494.61 (102,247.2)	15.05 ***
Logged economic awards	5.11	14.80	11.26 (1.38)	11.55 (1.28)	10.36 (1.30)	16.95 ***
Causal contribution	0	5	3.03 (1.12)	3.08 (1.10)	2.89 (1.17)	3.08 **
Number of defendants	1	2				2.57
- Only one			91.82%	91.25%	93.61%	

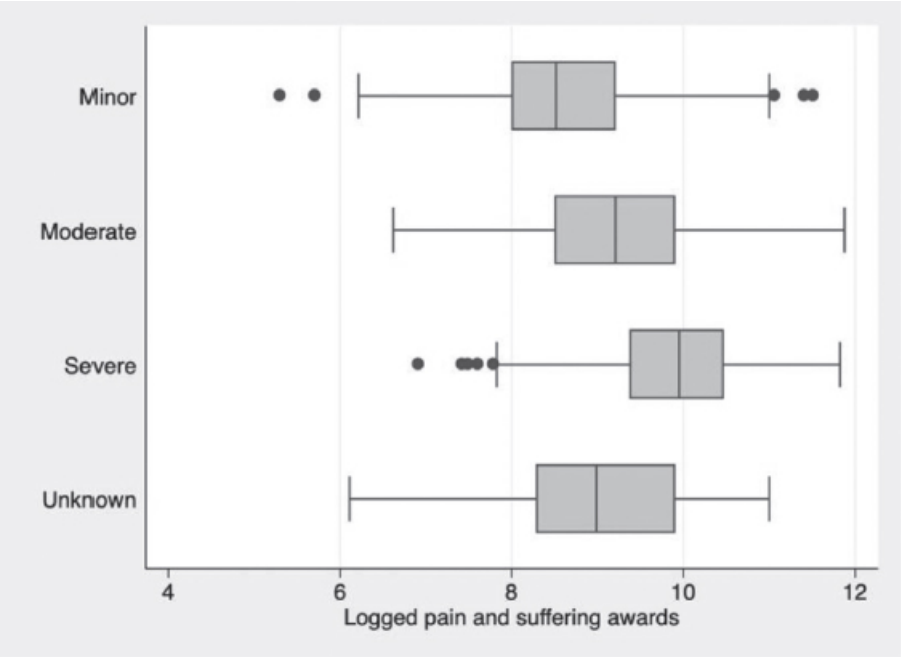
- More than one			8.18%	8.75%	6.39%	
1210 Level of hospital	0	1				
-Non-third-level hospital			62.43%	60.64%	68.06%	2.31 *
-Third-level hospital			37.57%	39.36%	31.94%	1.64
Original living standards (*yuan*)	27,635.63	11,8158.3	58,843.63 (22,505.97)	58,242.3 (22,334.04)	60,735.05 (22,960.77)	2.03 *
Logged living standards	10.23	11.68	10.92 (.34)	10.91 (.34)	10.95 (.35)	2.06 *
Original claimed pain and suffering damage (except unclaimed) (*yuan*)	225	1,257,974	43,845 (74,930.58)			
Logged claimed pain and suffering damage	5.42	14.05	10.11 (1.09)			

Note: * p< .05; ** p<.01; *** p< .001

a The comparison test here refers to the two-sample t-test, excluding variables: the injury severity, the number of defendants, and the level of hospital. For those three variables, the comparison test applied here is Pearson chi-square test.

Among all cases, the percentage of the victims who suffered minor injury, moderate injury and severe injury is respectively 48.67 per cent, 20.83 per cent and 16.15 per cent, with 14.35 per cent of cases with unknown injury severity. Moreover, in the cases where the court refused to award the pain and suffering award, cases involving severe injury, moderate injury and minor injury respectively account for 5.95 per cent, 7.05 per cent and 61.45 per cent, while among the cases where the court awarded pain and suffering damages, the corresponding percentage is 19.40 per cent, 25.21 per cent and 44.61 per cent. It is evident that the variation in terms of the injury severity between the two sets of personal injury cases with and without pain and suffering awards was significant (chi-square = 165.58, p <.001). Figure 2 above displays the box plots of the logged pain and suffering awards for the different levels of injury severity. The line dividing each box denotes the median pain and suffering awards for each level of injury severity. The median logged pain and suffering awards, from the lowest to the highest, are minor injury (e 8.52 ≈ 5,014 *yuan*), unknown injury severity (e 8.99 ≈ 8,022 *yuan*), moderate injury (e 9.21 ≈ 9,997 yuan) and severe injury (e 9.95 ≈ 20,952 *yuan*). This indicates ***1212*** an overall trend that the higher the level of the injury severity, the higher the amount of the pain and suffering award.

1211 **Figure 2: Distribution of Logged Pain and Suffering Awards in Four Levels of injury severity**



The mean of the awarded economic damages is around 170,177.9 *yuan* (SD = 265,061). Using the mean values, the ratio of pain and suffering awards to economic awards is about 0.06, much less than the equivalent ratio in other jurisdictions, such as the United States[48] and Taiwan.[49] As Table 2 shows, there was a significant difference in awarded economic damages between the two sets of personal injury cases with and without pain and suffering awards, t (754.58) = 16.95, p <.001, indicating that the plaintiffs in personal injury cases with pain and suffering awards (M = 203,141.6 *yuan*, SD = 291,175.9), on average, were awarded more

economic damages than those in cases without pain and suffering awards (M = 66,494.61 *yuan*, SD = 102,247.2). Moreover, Figure 3a and Figure 3b respectively display the box plot and the dot plot, distinguishing the distribution of the logged economic awards among four categories of injury severity. These indicate that, first, the median of logged economic awards for each category of injury severity was higher in cases with pain and suffering awards than those without pain and suffering awards. Second, in terms of cases without pain and suffering awards, the median of logged economic awards for the category of minor injury was around e 10.33 ≈ 30,638 *yuan*, for the category of moderate injury it was about e 11.26 ≈ 77,653 *yuan*, while for the category of severe injury, it dropped to e 10.83 ≈ 50,514 *yuan*. The mean difference between the two categories of moderate and minor injury was significant (mean difference = .75, $p < .05$), as was the difference between the categories of minor and severe injury (mean difference = .72, $p < .05$). However, the mean difference between the two categories of moderate and severe injury was not significant (mean difference = –.03, $p > .05$). Third, in terms of cases with pain and suffering awards, the median of logged economic damages for the category of minor injury was around e 11.20 ≈ 73,130 *yuan*, for the category of moderate injury it was about e 11.88 ≈ 144,350 *yuan*, and for the category of severe injury it increased to e 12.71 ≈ 331,041 *yuan*. The mean difference between each of the categories was significant (mean difference = .90, $p < .001$ between the categories of moderate and severe injury; mean difference = .78, $p < .001$ between those of moderate and minor injury; and mean difference = 1.68, $p < .001$ between those of minor and severe injury).

1213 **Figure 3a: Boxplot of Logged Economic Damages in Four Levels of Injury Severity in Personal Injury Cases with and without Pain and Suffering Awards**

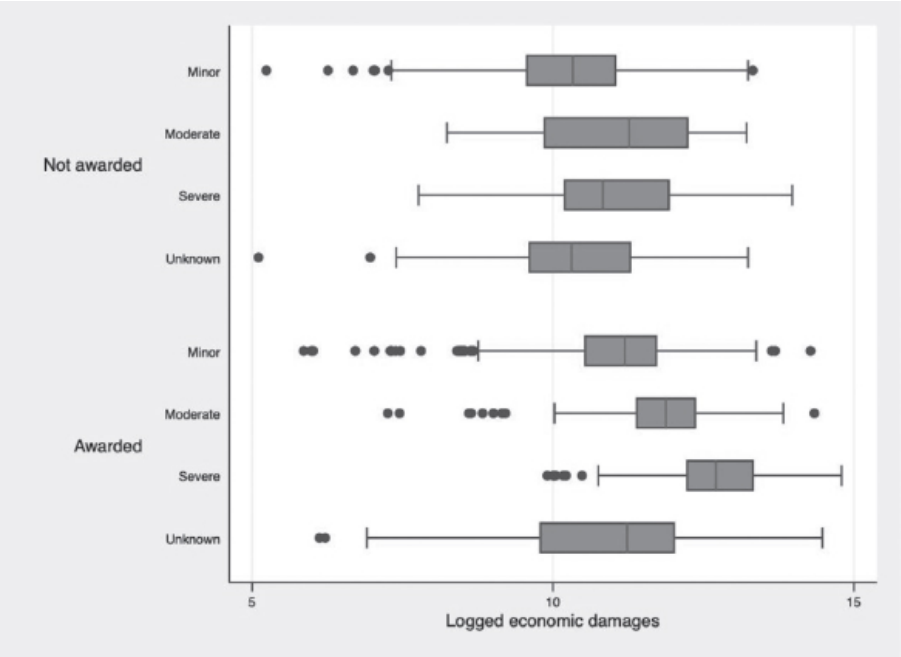
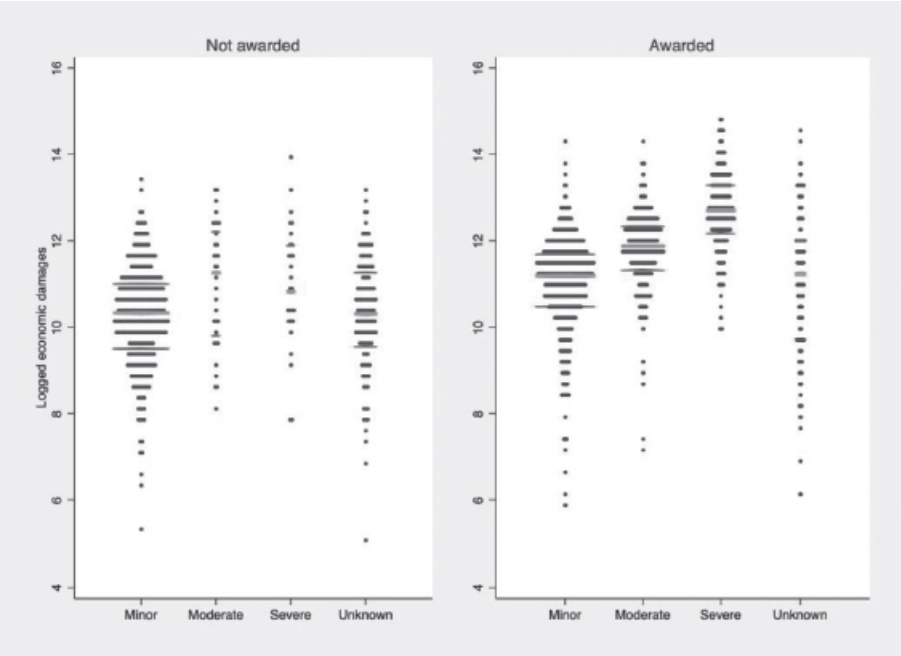


Figure 3b: Dot Plot of Logged Economic Damages in Four Levels of Injury Severity in Personal Injury Cases with and without Pain and Suffering Awards



The average degree of causal contribution of the defendant' s negligence is 3.03 (SD = 1.12), representing a causal contribution close to but slightly ***1214*** higher than 41–60 per cent. As Table 2 shows, the independent-samples *t* test was significant, *t* (726.45) = 3.08, *p* < .01, which indicates that the causal contribution of the defendant' s negligence in personal injury cases with pain and suffering awards (M = 3.08, SD = 1.10), on average, was higher than those cases without pain and suffering awards (M = 2.89, SD = 1.17).

In terms of the number of defendants, 91.82 per cent of the total cases had only one defendant, and the difference of this variable between the two sets of personal injury cases with and without pain and suffering awards was not significant.

As for the financial ability of the defendant measured by the level of the hospital, 37.57 per cent of the defendants were the third-level hospitals, and the rest of defendants were non-third-level hospitals (62.43 per cent).

In terms of the living standards of the court' s locality, the average GDP per capita was 58,843.63 *yuan* (SD = 22,505.97); and the average GDP per capita of cases with pain and suffering awards (M = 58,242.3, SD = 22,334.04), *t* (745.12) = 2.03, *p* < .05, was significantly lower than that of cases with pain and suffering awards (M = 60,735.05, SD = 22,960.77).

Finally, as for the claimed pain and suffering damages among all cases, the minimum amount was 225 *yuan,* and the maximum amount was 1,257,974 *yuan*. Apart from the unclaimed group (423 cases), in the rest of 1,232 cases where the plaintiffs claimed a certain amount of pain and suffering damages, the mean of original claimed pain and suffering damages is around 43,845 *yuan* (SD = 74,930.58), and the mean of logged claimed pain and suffering damage is around e 10.11 ≈ 24,587 *yuan* (SD = e 1.09).

The correlation matrix among all variables included in this study is listed in Table 3. All the entries in Table 3 are lower than 0.6, indicating there are no multicollinearity issues among all variables in our study.

1215 **Table 3: Correlation Matrix for Variables**

Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1. Logged pain and suffering awards	1.00							
2. Injury severity	.31*	1.00						
3. Logged economic awards	.51*	.19*	1.00					
4. Causal contribution	.22 *	−.05*	.30*	1.00				
5. Logged living standards	−.02	−.01	−.05*	−.06*	1.00			
6. Number of defendants	.04	.04	.07*	.02	−.02	1.00		
7. Level of hospital	.04	.01	.06*	−.08*	.13*	.12*	1.00	
8. Logged claimed pain and suffering damages	−.01	−.01	−.02	−.02	.01	.03	.01	1.00

Note: All the entries are lower than 0.6, indicating there is no multicollinearity issues among the variables.

*$p < .05$

(b) Results of Regression Models

(i) Hypothesis one

To test whether the injury severity, the economic damages, the comparative negligence and whether the plaintiff had claimed pain and suffering damages matter when Chinese judges decide whether to award pain and suffering damages in successful personal injury lawsuits, we adopted binary logistic regression after dividing the personal injury cases in our database into two sets of cases — with and without pain and suffering awards. The variable regarding whether the plaintiff claimed pain and suffering damages in this logistical regression analysis was coded into two groups: unclaimed group (ie the plaintiff either claimed 0 *yuan* or did not claim pain and suffering damages at all) and claimed group (ie the plaintiff claimed pain and suffering damages of more than 1 *yuan*).

Table 4 presents the results of the logistic regression. First, when holding other variables at their mean, compared with the moderately injured plaintiffs, the plaintiffs suffering minor injury and injury of unknown severity were less likely to be awarded pain and suffering damages: specifically, those suffering minor injury (odds ratio = .33, $p < .001$) and those suffering injury of unknown severity (odds ratio = .18, $p < .001$) had a 14.72 per cent and a 25.55 per cent lesser probability of receiving the pain and suffering award, respectively. Moreover, the severely injured plaintiffs had a similar chance of being awarded pain and suffering damages as compared with the moderately injured plaintiffs. Second, the economic damages had a positive significant impact on the probability of receiving the pain and suffering award (odds ratio = 1.77, $p < .001$). It was found that when holding other variables at their mean, such probability was only 10.47 per cent if the amount of economic damages was at the lowest level (about 165.67 *yuan*), while the probability increased to more than 97 per cent if the amount of economic damages was at the highest level (about 2,676,445 *yuan*). Third, the sole effect of causal contribution was significant (odds ratio = 1.16, $p < .01$), indicating that the higher the degree of causal contribution by the defendant, the higher the probability of receiving the pain and suffering award. However, the Pseudo R2 of individual causal contribution to the dependent variables was only 0.0048, indicating a very minimal effect of the degree of causal contribution. When we controlled the effect of economic damages, the original significant effect of causal contribution was offset and became invalid (odds ratio = .91, $p > .05$).50 Then, all other conditions being equal, the causal contribution of the defendants' negligence had no significant influence ***1217*** on the probability of receiving the pain and suffering award (odds ratio =.97, $p > .05$). Finally, the factor of whether a plaintiff has claimed pain and suffering damages significantly influenced the probability of receiving the pain and suffering award: specifically, compared with the plaintiffs in the unclaimed group, the plaintiffs in the claimed group had a 6.28 per cent greater chance of being awarded pain and suffering damages (odds ratio = 1.50, $p < .001$).51

1216 **Table 4: Logistic Regression for Pain and Suffering Awards in Personal Injury Cases**

Predictors	**Odds ratio (s.e.)**
Injury severity (*Refs: moderate*)	
- *minor*	.33 (.07) ***
- *severe*	.60 (.17)
- *unknown*	.18 (.04) ***
Logged economic awards	1.77 (.09) ***
Causal contribution	.97 (.05)
Level of hospital (*Refs: non-third level of hospitals*)	
-*Third level of hospitals*	1.22 (.15)
Claimed pain and suffering damage (*refs: unclaimed damage*)	
- *Claimed damages*	1.50 (.19) ***
Constant	.01 (.01) ***
N	1871
χ^2	338.60 (7)
Pseudo-R2	.1633

*Note:*p < .05. **p < .01. ***p < .001*

(ii) Hypothesis two

Table 5 reports the results of the structural equation models on the amount of the pain and suffering awards and the claimed pain and suffering damages. We find that the chi-square goodness of fit test is insignificant ($\chi 2$ = .35, df = 1, p = .56), suggesting a good fit of the model to the data. Then, we see the root mean square error of approximation (RMSEA) = .00, Comparative Fit Index (CFI) = 1.00, while Tucker−Lewis Index (TLI) = 1.03. Both findings indicate a good model fit to the data.

1218 **Table 5: Structural Equation Models of Pain and Suffering Awards in Personal Injury Cases with Claimed Pain and Suffering Damages**

Predictors	**Pain and suffering awards**	**Logged claimed pain and suffering damage**
	b (s.e.)	**b (s.e.)**
Injury severity (*refs: moderate*)		
- *Minor*	−41 (.07) ***	−.10 (.09)
- *Severe*	.52 (.09) ***	−.06 (.11)
- *Unknown*	−.01 (.11)	−.02 (.13)
Logged economic awards	.25 (.03) ***	
Logged living standards	−.02 (.08)	−.06 (.10)
Causal contribution	.17 (.03) ***	−.07 (.03) *
Number of defendants (*refs:only one*)		
- *More than one*	.03 (.10)	.11 (.12)
Level of hospital (*Refs: Non-third level hospitals*)		
- *Third level hospitals*	−.02 (.06)	.01 (.07)
Logged claimed pain and suffering damage	.01 (.10)	
Constant	5.87 (1.01) ***	10.92 (1.13) ***
N	949	949

*Note:*p < .05. **p < .01.*

****p < .001*

In terms of injury severity, as Column 1 in Table 5 reveals, there was a significant relationship between the injury severity and the amount of the pain and suffering award. Compared with the moderately injured plaintiffs, the plaintiffs who suffered minor injury were normally awarded less pain and suffering damages (b = −.41, p < .001): specifically, about (exp (−.41) − 1) * 100 per cent ≈ −34 per cent, which is 34 per cent less (about 2,912 *yuan* less). Moreover, the severely injured plaintiffs were awarded a higher amount of pain and suffering damages (b = .52, p < .001) than the moderately injured plaintiffs: specifically, about (exp (.52) − 1) * 100 per cent ≈ 68 per cent higher (about 5,825 *yuan* higher). The plaintiffs with unknown injury severity and the moderately injured plaintiffs showed no significant difference in terms of the amount of the pain and suffering awards.

In terms of awarded economic damages, Column 1 in Table 5 shows a positive and significant relationship between the economic award and the pain and suffering award (b = .25, p < .001). All other conditions being equal, for every 10 per cent (about 17,018 *yuan*) increase in the amount of economic award, the amount of the pain and suffering award increased by (1.10 .25 – 1) * 100 per cent ≈ 2.41 per cent (about 206.44 *yuan*).

In terms of the causal contribution of the defendant' s negligence, as Column 1 in Table 5 shows, holding all other variables at their mean, the higher the degree of causal contribution on the part of the defendant, the greater the pain and suffering awards the plaintiff received (b =.17, p <.001). More precisely, for every one-level increase in the causal contribution, the amount of the pain and suffering award could be expected to increase about (exp (.17) − 1) * 100 per cent ≈ 19 per cent, which is about 1,628 *yuan*.

In terms of living standards of the court' s locality, as Column 1 in Table 5 shows, holding all other things constant, the GDP per capita of the court' s locality had no significant impact on predicting the amount of pain and suffering awards in personal injury cases.

1219 **(iii) Hypothesis three**

The third hypothesis predicts the relationship between the financial ability of the defendant and the amount of pain and suffering award based on the deep pockets theory. Table 4 shows that the level of the hospital had no significant impact on the probability of receiving a pain and suffering award in a personal injury case. The third-level hospitals had no significant probability of paying compensation for pain and suffering compared with the non-third-level hospitals (odds ratio = 1.22, $p > .05$, Table 4). Moreover, for personal injury cases where the courts awarded pain and suffering damages, as shown in Column 1 in Table 5, when holding other variables constant, the number of defendants had no significant impact on the amount of the pain and suffering award (b = .03, $p > .05$). In terms of the level of the hospital, compared with the non-third-level hospitals, the third-level hospitals had no significant difference in terms of the amount of pain and suffering awards (b = −.02, $p > .05$). Therefore, the third hypothesis can be rejected in this study.

(iv) Hypothesis four

The fourth hypothesis conjectures that the amount of the claimed pain and suffering damages has a significant influence on the amount of the pain and suffering award. As Column 1 in Table 5 shows, the plaintiff's claimed pain and suffering damages are insignificant in predicting the amount of the pain and suffering award (b = .01, $p > .05$). Moreover, Column 2 in Table 5 discloses what drove the amount of pain and suffering damages claimed by plaintiffs in personal injury cases. As the model shows, among the variables included in this study, plaintiffs only considered the causal contribution of the defendant's negligence in making their claim for pain and suffering damages. Holding all other variables at their mean, for every one-unit increase in the causal contribution, the amount of the claimed pain and suffering damages is expected to decrease about (exp (−.07) − 1) * 100 per cent ≈ −6.76 per cent, which is 1,659.13 *yuan*.

5. Discussion

(a) When Do Judges Refuse to Award Pain and Suffering Damages?

The results of the logistic regression in this study partially prove the first hypothesis to the extent that the factors of injury severity, economic damages and whether the plaintiff has claimed pain and suffering damages have a significant impact on the probability of receiving ***1220** pain and suffering damages in successful personal injury lawsuits. First, although the plaintiffs who suffered severe and moderate injuries have a similar chance of being awarded pain and suffering damages, those suffering minor injuries evidently have a significantly less chance of receiving the pain and suffering award. In other words, Chinese judges are more likely to refuse to award pain and suffering damages when the plaintiffs suffer minor injuries. Second, the economic damages have a positive significant influence on the probability of judicial awarding of pain and suffering damages in Chinese personal injury litigation. The greater the economic damages incurred, the higher the probability of receiving the pain and suffering award. Third, Chinese judges do consider the factor of whether the plaintiff has claimed pain and suffering damages when deciding whether to award pain and suffering damages for personal injury. They are more likely to award pain and suffering damages to the plaintiffs who have claimed this head of damages than those who have not. Understandably, judges may interpret that a plaintiff who did not claim pain and suffering damages is not keen to claim such damages and less likely to appeal when judges refuse to award them. However, the factor of the causal contribution of the defendant's negligence makes no significant difference in terms of the probability of getting compensation for pain and suffering in personal injury cases. As mentioned in the "Results" section, the original significant effect of causal contribution was absorbed by the effect of economic damages.

These findings help us better understand how Chinese judges interpret the Chinese-characteristic statutory threshold "serious mental distress" for awarding pain and suffering damages after establishing the defendant's tortious liability for personal injury, as set out in art 1183(1) of the Civil Code. We find that Chinese judges decide whether the plaintiff in question has met the unmeasurable statutory threshold "serious mental distress" by referring to a set of measurable indicators, including the injury severity, the amount of economic damages, and whether the plaintiff cares about noneconomic damages. In other words, they transform a subjective judgment into an objective one, thus exercising judicial discretion on whether to award pain and suffering damages in a justifiable, consistent and predictable way. As this study predicts, it is more likely for Chinese judges to conclude that a plaintiff has not suffered "serious emotional distress" when he only incurs minor injury and a low amount of economic damages and shows little interest in noneconomic damages. Therefore, such a plaintiff will have much less chance of receiving a pain and suffering award in personal injury litigation.

***1221** (b) Do the Guiding Factors Matter to Award Amounts?

The results of structural equation model analysis in this study shed light on how Chinese judges quantify pain and suffering damages in personal injury cases and on whether the relevant guiding factors that the SPC requires lower courts to consider for assessing pain and suffering damages matter to award amounts. This study finds that, among the four identified guiding factors, the injury severity, the economic damages and the causal contribution of the defendant's negligence have a positive and significant influence on the amount of a pain and suffering award.

First, in terms of the amount of pain and suffering awards, the following inequality generally holds in Chinese personal injury litigation: severe injury > moderate injury > minor injury. Moreover, we find that Chinese

judges are inclined to determine the amount of pain and suffering awards by referring to the cases involving moderate injury when the level of injury severity in question is unknown and unascertainable.

In addition, this study further finds that, on average, Chinese judges award a relatively higher amount of pain and suffering damages for severe injury than for death (the mean value of pain and suffering awards for severe injury and death is respectively 24,126 *yuan* and 20,986 *yuan*, t (429.152) = 2.44, p < .01).52 This finding confirms the previous literature that shows both common law and civil law courts normally award higher compensation for noneconomic damages in cases involving permanent major/grave injuries than in the cases involving death,53 albeit that in the common law system, noneconomic damages are paid to compensate pain and suffering of the deceased who has died during or immediately after the negligence occurred, while in the civil law system (to which Chinese law belongs) noneconomic damages are paid to the family of the deceased to compensate their loss of a loved one.

Second, economic damages positively and strongly influence noneconomic damages in Chinese personal injury litigation: the higher the amount of economic damages the plaintiff suffers, the greater the amount of pain and suffering damages the court awards. Consistent with and in addition to the finding of Kritzer *et al.* (by comparing the cases resulting in death and those producing permanent disability) that the injury severity conditioned the relationship between economic and noneconomic damages,54 this study further finds that, regarding the different degrees ***1222*** of influence of economic damages on noneconomic damages in Chinese personal injury litigation, the following inequality holds: severe injury > moderate injury > minor injury.

Third, this study finds a significant relationship between the causal contribution of the defendant's negligence and the amount of the pain and suffering award. This is expected as Chinese courts apportion both economic and noneconomic damages between the disputing parties according to the identified degree of causal contribution on the part of each disputing party (ie comparative negligence). Finally, we observe that the living standards of the court's locality have no significant impact on the judicial assessment of pain and suffering damages in Chinese personal injury cases.

To sum up, the measurable factors of the injury severity, the economic damages and the causal contribution of the defendant's negligence significantly and positively influence the judicial quantification of unmeasurable pain and suffering damages in Chinese personal injury litigation. Although Chinese law has not established any scheduling model to rein in judicial discretion in assessing pain and suffering damages in tort actions, as a matter of fact, Chinese judges are significantly guided by the above three measurable factors when quantifying pain and suffering damages for personal injury. As noted in Part 2 of this article, under Chinese law, the scope of economic damages includes a Chinese-characteristic head of damages called "disability compensation", which actually incorporates the age of the victim. Therefore, we argue that a *de facto* scheduling model exists in Chinese judicial practice for assessing pain and suffering damages for personal injury, which helps manage the consistency and predictability of award amounts in personal injury cases.

(c) Does the Deep Pockets Effect Exist?

The regression analysis in this study also finds that the defendant's financial ability measured by the number of defendants and the level of the hospital has no significant influence either on the probability of receiving the pain and suffering award or on the amount of pain and suffering awards. Consistent with the previous research,55 this study has not produced any evidence to support the deep pockets theory in personal injury litigation in China. This finding may be interpreted in the light of the range of pain and suffering awards. Chinese judges generally award pain and suffering damages for personal injury in a modest range as the award ***1223*** amounts range from 200 *yuan* to 144,000 *yuan* (covering personal injury ranging from minor, to moderate, to severe), and they seldom award outrageous noneconomic damages. Also, the defendants in medical negligence cases are generally stronger than the plaintiffs in terms of financial ability. Therefore, there is a limited need for judges to consider the different financial abilities of the defendants when deciding the amount of pain and suffering damages for personal injury in medical negligence cases. More importantly, because Chinese judges give great weight to the measurable factors including the injury severity, the economic damages and the causal contribution on the part of the defendant for assessing noneconomic damages for personal injury, there is little room for variations in the financial ability of the defendants to have a significant influence.

Hence, although the SPC includes the financial ability of the defendant as one of the guiding factors for lower courts to consider when assessing pain and suffering damages in tort actions, this factor actually displays no significant impact on personal injury litigation. Because noneconomic damages remain compensatory (but not punitive) damages in nature, it is indeed desirable that the judicial assessment of this head of damages is not influenced by the defendant's ability to pay compensation.

(d) Does the Anchoring Effect Exist?

In this study, we tested the anchoring effect by examining the plaintiff's ad damnum as anchor and found that the anchoring effect does not exist in Chinese personal injury cases. Although it shows that the existence of the plaintiff's ad damnum will lead to a 6.28 per cent greater chance of receiving a pain and suffering award, strictly speaking, this is not attributed to the anchoring effect of the plaintiff's ad damnum. Instead,

Chinese judges interpret a lack of a claim for pain and suffering damages by a plaintiff as an indication of that person's lack of interest in noneconomic damages, which is seen as evidence that the plaintiff has not suffered "serious mental distress" — the statutory threshold for awarding pain and suffering damages under Chinese law.

The lack of an anchoring effect could be viewed as a positive point as Chinese courts are not significantly influenced by the amount of the plaintiff's ad damnum. Because Chinese judges rely more on objective factors (such as the injury severity, the economic damages, the causal contribution of the defendant's negligence) than subjective factors (such as the plaintiff's ad damnum), the quantification of pain and suffering damages for personal injury tends to be consistent and predictable in Chinese courts.

***1224** **6. Conclusion**

Many criticise the judicial assessment of pain and suffering damages for a lack of fairness, consistency and predictability. This study is the first to investigate whether such criticism is well founded in personal injury litigation in China. Specifically, it provides empirical evidence on how Chinese judges exercise their discretion to decide whether to award pain and suffering damages, and what are the relevant factors that significantly influence the quantification of pain and suffering damages in personal injury litigation. We find that Chinese judges decide whether the plaintiff has reached the statutory threshold "serious emotional distress" for awarding pain and suffering damages by considering the measurable factors of the injury severity, the economic damages and whether the plaintiff has claimed this head of damages. The plaintiffs who suffer minor injury and a lesser amount of economic damages and have not claimed pain and suffering damages will have a significantly smaller probability of receiving pain and suffering awards for personal injury. We also find that in terms of judicial quantification of pain and suffering damages, the injury severity, the economic damages and the causal contribution of the defendant's negligence have a significant and positive influence on award amounts in personal injury litigation.

This study makes a number of contributions. First, it adds the Chinese experiences to the general discourse on the quantification of noneconomic damages and reports the possibility that despite the absence of a statutory scheduling model, there may be a *de facto* scheduling model where judges quantify pain and suffering damages under a significant influence of measurable factors, including the injury severity, the economic damages (which to some extent incorporates the age of the victim), and the comparative negligence. With such a *de facto* scheduling model, judges are less likely to award capricious, inconsistent and unpredictable damages for personal injury. This also explains the reason why, unlike in U.S. law,[56] Chinese law does not have a rule that caps noneconomic damages.

Second, this empirical study of pain and suffering awards in Chinese personal injury litigation confirms the significant influence of economic damages on noneconomic damages, as reported by previous research conducted in other jurisdictions. In other words, economic damages are an important and useful predictor of noneconomic damages. Moreover, ***1225** this study contributes new empirical evidence as follows: the injury severity conditions the degree of the influence of economic damages on noneconomic damages, as shown in the following inequality: severe injury > moderate injury > minor injury. It remains open for future empirical research to investigate whether the same finding can be confirmed in other jurisdictions.

Third, this study did not produce any evidence supporting the deep pockets effect in Chinese personal injury cases although the SPC suggests that lower courts should consider the financial ability of the defendant when quantifying pain and suffering damages. We argue that, all other conditions being equal, it is both unnecessary and unreasonable for judges to give different award amounts according to the defendant's ability to pay damages. The Chinese judiciary should reconsider whether this factor should be included as a guiding factor for judicial assessment of pain and suffering damages for personal injury caused by medical negligence, which are in nature compensative but not punitive damages.

Finally, this study reports an absence of an anchoring effect of the plaintiffs' ad damnum on the amount of the pain and suffering award in Chinese personal injury litigation. With the availability of measurable factors directly associated with pain and suffering damages that the plaintiffs sustain, it is desirable that Chinese judges rely on objective measurable factors and are free from the anchoring effect of the subjective plaintiff's ad damnum when quantifying noneconomic damages in personal injury cases.

***1226** **Appendix 1: Classification of Personal Injuries Caused by Medical Negligence in Chinese Law**

Injury severity	Criteria	Category
Grade I	Important organ damaged or dysfunctional; in need of special medical dependence; entirely unable to take care of self	Severe injury
Grade II	Organ damaged or dysfunctional; likely in need of special medical dependence; most of the time unable to take care of self	
Grade III	Organ severely dysfunctional; likely in need of special medical dependence; most of the time unable to take care	

	of self	
Grade IV	Organ severely dysfunctional; likely in need of special medical dependence; sometimes unable to take care of self	
Grade V	Organ severely dysfunctional; likely in need of general medical dependence; able to take care of self	
Grade VI	Organ with relatively severe dysfunction; likely in need of general medical dependence; able to take care of self	Moderate injury
Grade VII	Organ with medium-level dysfunction; likely in need of general medical dependence; able to take care of self	
Grade VIII	Organ with mild-level dysfunction; likely in need of general medical dependence; able to take care of self	
Grade IX	Organ with mild-level dysfunction; in no need of medical dependence; able to take care of self	Minor injury
Grade X	Organ with slight dysfunction; in no need of medical dependence; able to take care of self	
Other injuries	Injury less serious than Grade X	

1227 **Appendix 2: The Spectrum of Causal Contribution of the Defendant's Negligence**

Classification of Causal Contribution	Percentage (%)	Level
No contribution	0	0
Slight contribution	1–20	1
Secondary contribution	21–40	2
Equal contribution	41–60	3
Primary contribution	61–90	4
Full contribution	91–100	5

Appendix 3: The Grade of Health Care Providers

	Level	Grade
		A
	The third level	B
		C
		A
Hospitals	The second level	B
		C
		A
	The first level	B
		C
Others	Heath centres	
	Private clinics	

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6. *Ibid*., p 1009; Chang *et al*. (n 3 above) p 218.

7. Wissler *et al*. (n 3 above) p 195.

8. Neil Vidmar, "Empirical Evidence on the Deep Pockets Hypothesis: Jury Awards for Pain and Suffering in Medical Malpractice Cases" (1993) 43(2) *Duke Law Journal* 217, 257.

9. Wissler *et al*. (n 3 above) p 190.

10. Campbell *et al*. (n 1 above) p 13, Chang *et al*. (n 3 above) pp 207–208.

11. Flatscher-Thöni *et al*. (n 3 above).

12. *Ibid*.

13. BD McAuliff and BH Bornstein, "All Anchors Are Not Created Equal: The Effects of Per Diem Versus Lump Sum Requests on Pain and Suffering Awards" (2010) 34(2) *Law and Human Behavior* 164, 166; Campbell *et al*. (n 1 above) p 5.

14. Krystia Reed, Valerie P Hans and Valerie F Reyna, "Accounting for Awards: An Examination of Juror Reasoning Behind Pain and Suffering Damage Award Decisions" (2019) 96(4) *Denver Law Review* 841, 848; Hillel Bavli and Reagan Mozer, "The Effects of Comparable-Case Guidance on Awards for Pain and Suffering and Punitive Damages: Evidence from a Randomized Controlled Trial" (2019) 37 *Yale Law & Policy Review* 405, 417.

15. The Reply of the SPC on Several Issues concerning the Trial of Defamation Cases (最高人民法院关于审理名誉权案件若干问题的解答), which was promulgated by the SPC on 7 August 1993 and effective on the same day. It was invalidated on 1 January 2021.

16. The Minutes of the Nationwide Meeting concerning the Trial Quality of Civil Lawsuits (全国民事案件审判质量工作座谈会纪要) were promulgated by the SPC on 29 November 1999 and effective on the same day; the Interpretation of the SPC on Several Issues concerning the Determination of Compensation Liability for Pain and Suffering Damages in Tort (最高人民法院关于确定民事侵权精神损害赔偿责任若干问题的解释), which was promulgated by the SPC on 8 March 2001, and effective on 10 March 2001. It was amended on 29 December 2020.

17. The Tort Liability Law of the People's Republic of China (中华人民共和国侵权责任法) was promulgated by the Standing Committee of the National People's Congress (NPC) on 26 December 2009 and effective on 1 July 2010. It was invalidated on 1 January 2021; the Civil Code of the People's Republic of China (中华人民共和国民法典) was promulgated by the NPC on 28 May 2020 and effective on 1 January 2021.

18. The Interpretation of the SPC on Several Issues concerning the Application of Law for the Trial of Cases on Compensation for Bodily Harm (最高人民法院关于审理人身损害赔偿案件适用法律若干问题的解释) was promulgated by the SPC on 26 December 2003 and effective on 1 May 2004. It was amended on 29 December 2020 and on 24 April 2022.

19. The Interpretation of the SPC on Several Issues concerning the Determination of Compensation Liability for Pain and Suffering Damages in Tort (最高人民法院关于确定民事侵权精神损害赔偿责任若干问题的解释) was promulgated by the SPC on 8 March 2001 and effective on 10 March 2001. It was amended on 29 December 2020.

20. The wording "means" (手段) in the 2001 SPC's interpretations on Several Issues concerning the Determination of Compensation Liability for Pain and Suffering Damages in Tort was amended to the wording "purpose" (目的) in the 2020 version. The language change, though substantial, does not affect this research because the medical negligence cases in our dataset were decided in 2016, and the factor of the "purpose" of the infringement matters in intentional tort but is of little relevance to negligence-based medical negligence cases.

21. Article 20 of the Interpretation of the SPC on Several Issues concerning the Application of Law for the Trial of Cases on Compensation for Bodily Harm, see n 18 above.

22. Article 8(1) of the Interpretations of the SPC on Several Issues concerning the Determination of Compensation Liability for Pain and Suffering Damages in Tort 2001, see n 19 above.

23. The Classification Criteria of Medical Malpractice (Interim) (医疗事故分级标准（试行）), which were promulgated by the Ministry of Health on 31 July 2002 and effective on 1 September 2002.

24. Article 12 of the Interpretation of the SPC on Several Issues concerning the Application of Law for the Trial of Cases on Compensation for Bodily Harm, see n 18 above.

25. Kritzer *et al*. (n 5 above) p 1009; Chang *et al*. (n 3 above) p 202.

26. Zhang Chunbing and Du Zhichun, "Analysis of Causation and Determination of the Degree of Casual Contribution in Medical Negligence Authentication (医疗损害司法鉴定因果关系分析与参与度判定)" (2005) 82 *Chinese Forensic Science* (中国司法鉴定) 100; Ding Chunyan, "How Much Do Expert Opinions Matter: An Empirical Investigation of Selection Bias, Adversarial Bias and Judicial Deference in Chinese Medical Negligence Litigation" (2019) 45(1) *Brooklyn Journal of International Law* 139, 147.

27. The NPC (1991) Civil Procedure Law of the People's Republic of China (中华人民共和国民事诉讼法), which was promulgated by the NPC on 9 April 1991 and was effective on the same day. It was amended on 28 October 2007, on 31 August 2012 and on 27 June 2017.

28. Peter Huber, *Liability: The Legal Revolution and Its Consequences* (New York: Basic Books, 1988) p 12; Robert J MacCoun, "Differential Treatment of Corporate Defendants by Juries: An Examination of the 'Deep-Pockets' Hypothesis" (1996) 30(1) *Law & Society Review* 121, 123.

29. Vidmar (n 8 above) p 262.

30. Yun Chien Chang, Theodore Eisenberg, Han Wei Ho and Martin T Wells, "Pain and Suffering Damages in Wrongful Death Cases: An Empirical Study" (2015) 12(1) *Journal of Empirical Legal Studies* 128, 152.

31. Chris Guthrie, Jeffrey J Rachlinski and Andrew J Wistrich, "Inside the Judicial Mind" (2001) 86(4) *Cornell Law Review* 777, 788.

32. John Malouff and Nicola S Schutte, "Shaping Juror Attitudes: Effects of Requesting Different Damage Amounts in Personal Injury Trials" (1989) 129(4) *Journal of Social Pychology* 491, 495; Gretchen B Chapman and Brian H Bornstein, "The More You Ask For, the More You Get: Anchoring in Personal Injury Verdicts" (1996) 10 *Applied Cognitive Psychology* 519, 532; Chang *et al*. (n 30 above) p 156; Chang *et al*. (n 3 above) pp 220–201; Campbell *et al*. (n 1 above) p 24.

33. The Measures on the Payment of Litigation Costs (诉讼法交纳办法), which were promulgated by State Council on 19 December 2006 and effective on 1 April 2007.

34. The Provisions of the SPC on Online Publication of Judgments by the People's Courts (最高人民法院关于人民法院在互联网公布裁判文书的规定), which were promulgated by the SPC on 21 November 2013 and effective on 1 January 2014. They were amended on 29 August 2016.

35. Article 4 of the Provisions of the SPC on Online Publication of Judgments by the People's Courts, *Ibid*.

36. The Provisions on the Cause of Action of Civil Cases (民事案件案由规定), which were Promulgated by the SPC on 4 February 2008 and effective on 1 April 2008. They were amended on 18 February 2011 and on 29 December 2020.

37. Ding Chunyan, "Judicial Activism of Provincial Courts in China: Medical Negligence Law as a Case Study" (2019) 7(3) *The Chinese Journal of Comparative Law* 505, 523.

38. Article 12 of the Interpretations of the SPC regarding Problems in Determining Compensation for Medical Negligence Cases (最高人民法院关于审理医疗损害责任纠纷案件适用法律若干问题的解释) was promulgated by the SPC on 13 December 2017 and effective on 14 December 2017. It was amended on 29 December 2020.

39. Chao Ma, Xiaohong Yu and Haibo He, "Big Data Analysis: A Report on Online Publication of Chinese Documents of Adjudication Decisions (大数据分析：中国司法裁判文书上网公开报告)" (2016) 4 *China Law Review* (中国法律评论) 195, 209, 231.

40. As exceptions, closed cases may be reopened and retried where statutory conditions are met in the Chinese legal system, see Yaxin Wang, "Civil Retrials: The Development of Procedure and the Application of the Relevant Judicial Interpretations (民事再审：程序的发展及其解释适用)" (2016) 5 *Northern Legal Science* (北方法学) 117, 117–119.

41. Mary L McHugh, "Interrater Reliability: The Kappa Statistic" (2012) 22(3) *Biochemia Medica* 276, 276–282.

42. The value of kappa above 0.81 indicates a very good agreement beyond chance or being almost perfect in terms of strength of agreement, see Martin Bland, *An Introduction to Medical Statistics* (Oxford: Oxford University Press, 2015) p 319.

43. See n 23 above.

44. The rule on causal contribution originated from local judicial practice and was ultimately confirmed by the SPC in art 12 of the Interpretations of the SPC regarding Problems in Determining Compensation for Medical Negligence Cases (see n 38 above). The original six categories of causal contribution are classified by Chinese medical negligence law: from no contribution to full contribution, with an increasing degree of causal contribution of the

defendant' s negligence shown in Appendix 2. In most medical negligence cases, the chosen or assigned medical negligence authentication agency provides expert opinions on the issue of causal contribution along with other legal issues concerning medical negligence liability (Ding, see n 26 above at p 147). The courts then review the expert opinions and decide whether to admit and use them for determining both liability and remedy issues.

45. National Bureau of Statistics of China, *China Statistics Yearbook* (Beijing: China Statistics Press, 2017), available at CNKI database.

46. According to the Interim Measures on Category Management of Hospitals (医院分级管理 办法（试行）), (which were promulgated by the Ministry of Health on 29 November 1989, effective on the same day), in medical negligence cases, the defendants are health care providers including hospitals, health care centres and private clinics. The health administration of China classifies hospitals into three levels and each into three groups A, B and C. The level of Chinese hospitals generally accords with their financial abilities: the higher the level a hospital is classified at, the stronger financial ability it obtains. Appendix 3 shows nine grades of Chinese hospitals classified by the national health administration: from the highest to the lowest, they are the third-level grade A, the third-level grade B, the third-level grade C, the second-level grade A, the second-level grade B, the second-level grade C, the first-level grade A, the first-level grade B and the first-level grade C. Although, in theory, there is the highest third-level special grade beyond the third-level A grade in the hospital classification system, no hospital has yet been classified as third-level special grade.

47. In this equation, *P* generally refers to the probability that a case is in a particular category, and, in our data, it refers to the probability that the plaintiff was awarded pain and suffering damages; *a* refers to the constant and *b*n refers to the coefficient of the independent variables.

48. Neil Vidmar, "The Performance of the American Civil Jury: An Empirical Perspective" (1998) 40 *Arizona Law Review* 849, 881–884; Avraham (n 1 above) p 941; Campbell *et al.* (n 1 above) p 3.

49. Chang *et al.* (n 3 above) p 228.

50. Our analysis indicated that the effect of economic damage on its own was significant (odds ratio = 1.95, $p > .001$), while the Pseudo R2 of economic damage towards the dependent variable could be as high as 0.1223.

51. Although we investigated the interactive impact of economic damages and injury severity on the probability of judicial awarding of pain and suffering damages, we could not get meaningful results because of the uneven distribution of cases involving moderate and severe injury and lower economic damages in the two sets of personal injury cases with and without pain and suffering awards (Figure 3b).

52. Ding Chunyan and Zhi Pei, "Loss of a Loved One: An Empirical Study of Pain and Suffering Awards in Wrongful Death Cases in China" (Working Paper, 2022) achived with authors.

53. Kritzer *et al.* (n 5 above) p 1011; Amaral-Garcia (n 3 above) p 415.

54. Kritzer *et al.* (n 5 above).

55. Vidmar (n 8 above) p 255.

56. Kevin J Gfell, "The Constitutional and Economic Implications of a National Cap on Non-Economic Damages in Medical Malpractice Actions" (2004) 37(3) *Indiana Law Review* 773, 775–776.