

POISONED CHALICE? A CRITICAL ANALYSIS OF THE EVIDENCE LINKING PERSONAL INJURY COMPENSATION PROCESSES WITH ADVERSE HEALTH OUTCOMES

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[Do injured persons whose injuries render them potentially eligible for compensation under social insurance schemes experience worse health outcomes and slower recoveries in the medium to long term than persons with similar injuries that are not covered by compensation schemes? Epidemiologists and health services researchers have probed that question since the 1970s, but interest in it has accelerated sharply in the last decade. A substantial body of empirical literature now exists to support the existence of a link between compensation status and health outcomes. A strand of that literature specifically implicates the role of compensation processes, lawyers and adversarialism in producing or perpetuating ill health among claimants. This article critically reviews research into the compensation–health relationship. Systematic methodological weaknesses are identified in the research — in particular, the inability to come to grips with the legal contours and realities of compensation processes. We conclude that, although there are important gaps in the evidence, the research raises profound questions about the impact of compensation processes on claimants’ health. Legal professionals and policymakers must take these questions seriously. The involvement of legal scholars in multidisciplinary research may improve the quality of the evidence base and facilitate appropriate policy interventions.]

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I INTRODUCTION

Compensation schemes for personal injury are prominent features of the legal landscape in many developed and middle-income countries. In Australia there is considerable variability in the focus and coverage of these schemes across jurisdictions: work-related injuries,¹ transport accidents,² sporting mishaps³ and criminally inflicted injuries⁴ are all covered in part or in whole by schemes that incorporate either civil liability, no-fault compensation or a combination of the two. These schemes, as their enabling legislation makes clear, are intended to expedite and streamline compensation processes, minimise costs to society and deliver just financial compensation to the injured.⁵ Some schemes also seek to deliver tangible public health benefits by promoting safety and advancing claimant rehabilitation.⁶

Over the past three decades, a series of epidemiological studies have tested the relationship between the health outcomes of claimants in personal injury compensation schemes and a range of potentially influential factors. Taken together, these studies suggest that ‘compensation status’ (variously defined as the receipt or the pursuit of compensation in connection with an injury) is

¹ See, eg, *Military Rehabilitation and Compensation Act 2004* (Cth); *Safety, Rehabilitation and Compensation Act 1988* (Cth); *Seafarers Rehabilitation and Compensation Act 1992* (Cth); *Workers Compensation Act 1951* (ACT); *Workers Compensation Act 1987* (NSW); *Workplace Injury Management and Workers Compensation Act 1998* (NSW); *Workers Rehabilitation and Compensation Act 2008* (NT); *Workers’ Compensation and Rehabilitation Act 2003* (Qld); *Workers Rehabilitation and Compensation Act 1986* (SA); *Workers Rehabilitation and Compensation Act 1988* (Tas); *Accident Compensation Act 1985* (Vic); *Workers’ Compensation and Injury Management Act 1981* (WA).

² See, eg, *Road Transport (Third-Party Insurance) Act 2008* (ACT); *Motor Accidents Act 1988* (NSW); *Motor Accidents Compensation Act 1999* (NSW); *Motor Accidents (Lifetime Care and Support) Act 2006* (NSW); *Motor Accidents (Compensation) Act 1979* (NT); *Motor Accident Insurance Act 1994* (Qld); *Motor Vehicles Act 1959* (SA); *Motor Accidents (Liabilities and Compensation) Act 1973* (Tas); *Transport Accident Act 1986* (Vic); *Motor Vehicle (Third Party Insurance) Act 1943* (WA).

³ See, eg, *Sporting Injuries Insurance Act 1978* (NSW).

⁴ See, eg, *Victims of Crime (Financial Assistance) Act 1983* (ACT); *Victims Support and Rehabilitation Act 1996* (NSW); *Victims of Crime Assistance Act 2006* (NT); *Victims of Crime Assistance Act 2009* (Qld); *Victims of Crime Act 2001* (SA); *Victims of Crime Assistance Act 1976* (Tas); *Victims of Crime Assistance Act 1996* (Vic); *Criminal Injuries Compensation Act 2003* (WA).

⁵ See, eg, *Accident Compensation Act 1985* (Vic) ss 3(d)–(e), (i); *Transport Accident Act 1986* (Vic) ss 8(a)–(c).

⁶ See, eg, *Accident Compensation Act 1985* (Vic) ss 3(a)–(c); *Transport Accident Act 1986* (Vic) ss 8(d)–(e). This is particularly the case in the transport accident and workers’ compensation fields.

negatively correlated with health outcomes following injury.⁷ There is considerable debate and uncertainty about the mechanism of this association, which, for ease of expression, we shall refer to hereafter as the ‘compensation status effect’ (‘CSE’). Among the various causal theories advanced in the CSE literature, the most important and intriguing is the notion that engagement with and passage through the legal and administrative processes that surround compensation systems may itself worsen claimants’ long-term prognoses. Epidemiologists have begun to interpret the legal dimension of claimants’ experience as a health-impeding ‘exposure’.⁸

If this causal explanation is accurate and the size of the CSE is substantial, the implications for public health and law are potentially enormous. Injury compensation schemes are a ubiquitous feature of Anglo-American legal systems. More than 180 000 compensation claims relating to workplace and transport injuries alone are filed each year in Australia.⁹ Research in comparable countries suggests that it is likely that, along with consumer issues, neighbourhood disputes, debt, employment, housing and family relationships, personal injuries are one of the most common sources of ‘justiciable problems’ experienced by community members.¹⁰ In the parlance of epidemiology, the exposed population is very large.

⁷ Examples are the studies analysed in Ian Harris et al, ‘Association between Compensation Status and Outcome after Surgery: A Meta-Analysis’ (2005) 293 *Journal of the American Medical Association* 1644, 1644–5.

⁸ Epidemiology, the core discipline of public health, involves ‘[t]he study of the occurrence and distribution of health-related states or events in specified populations, including the study of the determinants influencing such states, and the application of this knowledge to control the health problems’: Miquel Porta, Sander Greenland and John M Last (eds), *A Dictionary of Epidemiology* (5th ed, 2008) 81 (citations omitted). Epidemiology is concerned with the causal associations between predictor variables (exposures) and health states (outcomes), and its analytic methods are geared toward the assessment of risk, injury and disease in populations: Lawrence O Gostin, *Public Health Law: Power, Duty, Restraint* (2nd revised ed, 2008) 17–18. For an introduction to epidemiology and its relationship with law, see Richard A Goodman, ‘Epidemiology 101: An Overview of Epidemiology and Its Relevance to US Law’ (2007) 10 *Journal of Health Care Law and Policy* 153.

⁹ This estimate comes from summing publicly available data on annual case loads. Specifically, our calculation for workers’ compensation claims ($n = 132\,589$) is based on the total number of serious claims involving one week or more of incapacity in 2006–07: see Safe Work Australia, *Comparison of Workers’ Compensation Arrangements in Australia and New Zealand* (2009) 32. Our approximation of the national total of transport accident claims ($n = 48\,801$) is derived by adding the most recent annual new claims figures for complete accident years contained in the annual reports of the state-based transport accident insurance bodies: Transport Accident Commission (Vic) (‘TAC’), *A Journey: 2009 Annual Report* (2009) 41 ($n = 19\,162$ in Victoria in 2008–09); Motor Accidents Authority of NSW, *Annual Report 2008–2009* (2009) 76 ($n = 9532$ in New South Wales in 2007–08); Motor Accident Insurance Commission (Qld), *Statistical Information — 1 January to 30 June 2009* (2009) 5 ($n = 6039$ in Queensland in 2007–08); Insurance Commission of Western Australia, *Annual Report 2009* (2009) 57 ($n = 4078$ in Western Australia in 2008–09); Motor Accident Commission (SA), *Annual Report 2008–09* (2009) 14 ($n = 6623$ in South Australia in 2008–09); Motor Accidents Insurance Board (Tas), *Annual Report 2008–2009* (2009) 15 ($n = 3367$ in Tasmania in 2008–09). Data was not available for new claims in the Australian Capital Territory and the Northern Territory and accordingly the total estimate for the annual number of claims reported here is an underestimate.

¹⁰ These findings have been made in large-scale empirical studies in England, Scotland and Wales of the experience of ‘justiciable problems’ in general population samples: see Hazel Genn, *Paths to Justice: What People Do and Think about Going to Law* (1999) 24; Hazel Genn and Alan Paterson, *Paths to Justice Scotland: What People in Scotland Do and Think about Going to Law*

From a legal perspective, the exposed population goes by different names — ‘claimants’ and ‘clients’. Many injured persons who seek relief from accident compensation schemes are represented by personal injury lawyers, and legal teams within the compensation schemes adjudicate, negotiate and litigate the claims. It is thus remarkable that investigation of and commentary about the CSE has barely penetrated legal scholarship to date.¹¹ Epidemiological research dominates the area. The result of this lack of engagement from the legal side is unfortunate but predictable: CSE studies show a strong tendency to treat the exposure of interest crudely, monolithically and without regard to the legal nuances and operational details associated with compensation processes.¹² This methodological weakness undercuts the strength of the empirical evidence base pertaining to the CSE.

This article begins by reviewing this evidence base. Next, it examines critically how the epidemiological literature has constructed and analysed compensation processes as risk factors for negative health outcomes among claimants. Finally, this article argues that there is a pressing need for the law and for legally trained analysts to engage with this research. To the extent that the reported association between compensation processes and poor health exists, it raises important questions for the law — both specific questions about lawyers’ ethical and professional responsibilities to the wellbeing of clients, and broader questions about the restorative objectives of personal injury compensation systems. An improved understanding of the compensation–health relationship may also indicate the need for particular reforms to the design of injury compensation schemes.

II EPIDEMIOLOGICAL EVIDENCE OF AN ASSOCIATION BETWEEN COMPENSATION AND POOR HEALTH OUTCOMES

A *The Catalysts*

In public health research, it is often wide-ranging reviews of the accumulated evidence of a particular phenomenon — as opposed to any one study, however

(2001) 36; Pascoe Pleasence et al, ‘Causes of Action: First Findings of the LSRC Periodic Survey’ (2003) 30 *Journal of Law and Society* 11, 20; Pascoe Pleasence et al, Legal Services Research Centre, *Civil Justice in England and Wales: Report of the 2007 English and Welsh Civil and Social Justice Survey* (2008) 11.

¹¹ The most prominent of the exceptions is Katherine Lippel’s qualitative investigation of claimant experiences: Katherine Lippel, ‘Workers Describe the Effect of the Workers’ Compensation Process on Their Health: A Québec Study’ (2007) 30 *International Journal of Law and Psychiatry* 427. Key non-empirical contributions have been made by Ison and Lippel: see, eg, Terence G Ison, ‘The Therapeutic Significance of Compensation Structures’ (1986) 64 *Canadian Bar Review* 605; Katherine Lippel, ‘Therapeutic and Anti-Therapeutic Consequences of Workers’ Compensation’ (1999) 22 *International Journal of Law and Psychiatry* 521. Additionally, Pleasence, Balmer and Buck have forayed into quantitative assessments of health states associated with civil law problems in England and Wales: Pascoe Pleasence, Nigel J Balmer and Alexy Buck, ‘The Health Cost of Civil-Law Problems: Further Evidence of Links between Civil-Law Problems and Morbidity, and the Consequential Use of Health Services’ (2008) 5 *Journal of Empirical Legal Studies* 351.

¹² See Lippel, ‘Workers Describe the Effect of the Workers’ Compensation Process on Their Health’, above n 11, 440.

well done or prominent — that produce major shifts in the perceived importance of that phenomenon. A 1964 report by the United States Surgeon General on the relationship between smoking and lung cancer is one classic example.¹³ Similarly, the current interest in the CSE can be traced to two major reviews.

In the late 1990s, with Australian lawmakers facing a perceived personal injury litigation and insurance ‘crisis’,¹⁴ the Australasian Faculty of Occupational Medicine and the Royal Australasian College of Physicians undertook a review of the evidence said to show that ‘people who are injured and claim compensation for that injury have poorer health outcomes than people who suffer similar injuries but are not involved in the compensation process.’¹⁵ The resultant *Compensable Injuries and Health Outcomes* report documented the inconclusive nature of much of the literature on the subject¹⁶ but concluded that there was ‘good quality evidence’ supporting the existence of the association.¹⁷ Additionally, the report presciently foreshadowed the need for further research to investigate the role of compensation processes and scheme design in influencing claimant health.¹⁸

In 2005, Ian Harris and colleagues published in the *Journal of the American Medical Association* a meta-analysis¹⁹ of 211 studies examining the impact of compensation status on health outcomes following surgery.²⁰ Although the analysis included studies dating as far back as 1947, the majority were relatively new — more than 90 per cent had been published after 1985.²¹ Of the studies, 175 reported a worse health outcome for people within a ‘compensation group’ than among injured persons who had not received compensation, 30 found ‘no difference between the groups’, 5 made no comment on any difference, and 1 study described a more favourable outcome for the compensation group.²² While stopping short of making a specific statement about the causal relationships involved, the authors concluded that their investigation demonstrated

a strong association between compensation status and poor outcome after surgery. The association is maintained when allowing for type of intervention, type of compensation, country of origin, date of publication, or methodological

¹³ Surgeon General’s Advisory Committee on Smoking and Health, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service* (1964).

¹⁴ See E W Wright, ‘National Trends in Personal Injury Litigation: Before and after “Ipp”’ (2006) 14 *Torts Law Journal* 233, 233.

¹⁵ Health Policy Unit, Australasian Faculty of Occupational Medicine and Royal Australasian College of Physicians, *Compensable Injuries and Health Outcomes* (2001) 2.

¹⁶ *Ibid* 9–21.

¹⁷ *Ibid* 2.

¹⁸ *Ibid* 3, 36.

¹⁹ ‘Meta-analysis’ is ‘a systematic approach to identifying, appraising, synthesising, and (if appropriate) combining the results of relevant studies to arrive at conclusions about a body of research’: Donna F Stroup et al, ‘Meta-Analysis of Observational Studies in Epidemiology: A Proposal for Reporting’ (2000) 283 *Journal of the American Medical Association* 2008, 2008. For an introduction to and discussion of the utility of meta-analyses in legal contexts, see Jeremy A Blumenthal, ‘Meta-Analysis: A Primer for Legal Scholars’ (2007) 80 *Temple Law Review* 201.

²⁰ Harris et al, ‘Association between Compensation Status and Outcome after Surgery’, above n 7.

²¹ Our calculations are based upon the publications reported in *ibid*; see especially at 1646–8.

²² *Ibid* 1646.

aspects (length and completeness of follow-up, prospective [versus] retrospective design, and study type).²³

B *Deconstructing the CSE: From General Association to Specific Mechanism of Action*

A review of the CSE literature reveals tremendous variability in both the research questions selected and the methodologies used.²⁴ A diverse collection of injury types are considered, ranging from relatively discrete injuries such as distal radial fractures²⁵ and whiplash-associated disorders²⁶ to broader categories of polytrauma²⁷ and general surgical outcomes.²⁸

Although epidemiological evidence of the CSE continues to accumulate apace, there has been limited development of answers to the questions raised almost a decade ago about the nature of the causal mechanisms involved.²⁹ A handful of studies, however, have taken the further step of attempting to focus specifically on the role of legal and compensation process factors.³⁰ These studies move beyond consideration of compensation status as a general binary variable and try to tease out elements of the processes associated with compensation systems that might play a role in the negative health outcomes of claimants. This subgroup of studies in the CSE literature is the chief focus of the critical appraisal that follows. To distinguish the subgroup from the more general studies of associations between compensation and health status, we refer to them hereafter as investigations of the 'legal and administrative process effect' ('LAPE').

²³ Ibid 1649.

²⁴ Ellen S Pryor, 'Noneconomic Damages, Suffering, and the Role of the Plaintiff's Lawyer' (2006) 55 *DePaul Law Review* 563, 564 fn 2; Marina Wise, 'Does Workers' Compensation Influence Recovery Rates? A Critical Review of the Literature' (Report, Workers' Compensation and Rehabilitation Commission, July 2001) 35–7.

²⁵ See, eg, Joy C MacDermid et al, 'Patient versus Injury Factors as Predictors of Pain and Disability Six Months after a Distal Radius Fracture' (2002) 55 *Journal of Clinical Epidemiology* 849.

²⁶ See, eg, Linda J Carroll et al, 'Course and Prognostic Factors for Neck Pain in Whiplash-Associated Disorders (WAD)' (2008) 17 (Supplement 1) *European Spine Journal* S83; Gwendolijne G M Scholten-Peeters et al, 'Prognostic Factors of Whiplash-Associated Disorders: A Systematic Review of Prospective Cohort Studies' (2003) 104 *Pain* 303. Recently, specific calls have been made for studies examining the influence of compensation systems and related factors in prognosis and recovery: see, eg, Linda J Carroll et al, 'Course and Prognostic Factors for Neck Pain in the General Population' (2008) 17 (Supplement 1) *European Spine Journal* S75, S81; Linda J Carroll et al, 'Research Priorities and Methodological Implications: The Bone and Joint Decade 2000–2010 Task Force on Neck Pain and Its Associated Disorders' (2008) 33 (Supplement 4) *Spine* S214, S216.

²⁷ See, eg, Boris A Zelle et al, 'Influence of Workers' Compensation Eligibility upon Functional Recovery 10 to 28 Years after Polytrauma' (2005) 190 *American Journal of Surgery* 30.

²⁸ See, eg, Harris et al, 'Association between Compensation Status and Outcome after Surgery', above n 7.

²⁹ Ian A Harris et al, 'Predictors of General Health after Major Trauma' (2008) 64 *Journal of Trauma: Injury, Infection, and Critical Care* 969, 969.

³⁰ A description of these legal and compensation process factors is provided below in Part II(C).

C *An Anatomy of LAPE Research*

No common approach unifies LAPE studies, but the elements of the legal and compensation process that have been examined to date as potential risk factors for ill health can be classified into five main categories: scheme factors, claim lifespan factors, claims environment and management factors, liability and evidentiary factors and legal services factors.

'Scheme factors' are the basic system features (for example, tort-based or no-fault) and the forms of compensation available (for example, lump sum or periodical payments).³¹ One popular technique for investigating the health effects of scheme factors has been to exploit the measurement opportunity created by the introduction of major scheme reforms.³² A further, related category of exposure may be described as 'claim lifespan factors'; these include the effects of ongoing litigation,³³ delays³⁴ and the overall duration of claims resolution processes.³⁵

'Claims environment and management factors' cover the case management practices of insurers, which include communication between insurers and claimants,³⁶ as well as the adversarial claims environment and the associated disempowerment of the claimant.³⁷ These factors also include the stigmatising effect of the compensation claim upon the claimant, which incorporates the deleterious repercussions of such stigmatisation on the claimant's medical treatment and on their relationships with their treating medical practitioners.³⁸

³¹ See, eg, Health Policy Unit, above n 15, 33; Ian D Cameron et al, 'Legislative Change Is Associated with Improved Health Status in People with Whiplash' (2008) 33 *Spine* 250, 250; J David Cassidy et al, 'Effect of Eliminating Compensation for Pain and Suffering on the Outcome of Insurance Claims for Whiplash Injury' (2000) 342 *New England Journal of Medicine* 1179, 1179; Pryor, 'Noneconomic Damages, Suffering, and the Role of the Plaintiff's Lawyer', above n 24, 581–2; Ellen S Pryor, 'Part of the Whole: Tort Law's Compensatory Failures through a Wider Lens' (2008) 27 *Review of Litigation* 307, 332.

³² See, eg, Cameron et al, above n 31; Cassidy et al, above n 31.

³³ See, eg, Mohit Bhandari et al, 'Psychological Distress and Quality of Life after Orthopedic Trauma: An Observational Study' (2008) 51 *Canadian Journal of Surgery* 15, 15, 18–21; Edie Greene, "'Can We Talk?' Therapeutic Jurisprudence, Restorative Justice, and Tort Litigation' in Brian H Bornstein et al (eds), *Civil Juries and Civil Justice: Psychological and Legal Perspectives* (2008) 233, 233–4; Harris et al, 'Predictors of General Health after Major Trauma', above n 29, 970–3; Rodger L Wood and Neil A Rutterford, 'The Effect of Litigation on Long Term Cognitive and Psychosocial Outcome after Severe Brain Injury' (2006) 21 *Archives of Clinical Neuropsychology* 239, 240.

³⁴ See, eg, Health Policy Unit, above n 15, 16, 31; Lippel, 'Therapeutic and Anti-Therapeutic Consequences of Workers' Compensation', above n 11, 524–5; Lippel, 'Workers Describe the Effect of the Workers' Compensation Process on Their Health', above n 11, 437; Pryor, 'Part of the Whole', above n 31, 316; Patricia Sinnott, 'Administrative Delays and Chronic Disability in Patients with Acute Occupational Low Back Injury' (2009) 51 *Journal of Occupational and Environmental Medicine* 690, 691.

³⁵ See, eg, Harris et al, 'Predictors of General Health after Major Trauma', above n 29, 970–3.

³⁶ See, eg, Health Policy Unit, above n 15, 34; Wise, above n 24, 18.

³⁷ See, eg, Greene, above n 33, 233, 236; Ison, above n 11, 624–5; Lippel, 'Workers Describe the Effect of the Workers' Compensation Process on Their Health', above n 11, 435–6; Carol O'Donnell, 'Motor Accident and Workers' Compensation Insurance Design for High-Quality Health Outcomes and Cost Containment' (2000) 22 *Disability and Rehabilitation* 88, 92–4.

³⁸ See, eg, Ison, above n 11, 607–8; Lippel, 'Therapeutic and Anti-Therapeutic Consequences of Workers' Compensation', above n 11, 527–9, 533; Lippel, 'Workers Describe the Effect of the Workers' Compensation Process on Their Health', above n 11, 433–5, 437.

'Liability and evidentiary factors' capture aspects of the medico-legal process connected with 'proving' one's claim that may induce stress and fatigue. Examples of these are the number and type of independent medical assessments of claimants' injuries,³⁹ the attribution of blame and responsibility for accident circumstances,⁴⁰ and issues of causation (including the requirement that the claimant prove the existence of injuries and the way in which they occurred, which also arises in no-fault systems).⁴¹

Finally, 'legal services factors' involve claimants' use of lawyers and the role lawyers play in the compensation process.⁴² Related to this set of factors is the suggestion that some advocates encourage claimants to remain inactive in order to maximise compensation.⁴³

This typology of factors is instructive. It illustrates how research into LAPE has sought to isolate certain elements in the jumble of procedures and activities that surround claimants moving through a compensation system. The next step involves measuring these elements through variables that are amenable to empirical specification and comparison across large groups of injured individuals. In short, these are the predictors of health outcomes to which epidemiologists and health services researchers have turned in analysing LAPE.

III THE HEALTH IMPACT OF LEGAL AND ADMINISTRATIVE PROCESSES: METHODS AND FINDINGS IN THE EPIDEMIOLOGICAL LITERATURE

In general, LAPE studies have adopted one of three major methodological approaches:⁴⁴

- 1 comparison of the health outcomes of 'litigating' patients with those of 'non-litigating' patients;⁴⁵
- 2 comparison of cohorts of claimants before and after the introduction of scheme reforms;⁴⁶ or

³⁹ See, eg, Gary Fulcher, 'Litigation-Induced Trauma Sensitisation (LITS) — A Potential Negative Outcome of the Process of Litigation' (2004) 11 *Psychiatry, Psychology and Law* 79, 79; Ison, above n 11, 607–8, 617–18; Lippel, 'Therapeutic and Anti-Therapeutic Consequences of Workers' Compensation', above n 11, 532–3; William E Wilkinson, 'Therapeutic Jurisprudence and Workers' Compensation' (April 1994) *Arizona Attorney* 28, 30–1.

⁴⁰ See, eg, Harris et al, 'Predictors of General Health after Major Trauma', above n 29, 970–2.

⁴¹ See, eg, Lippel, 'Workers Describe the Effect of the Workers' Compensation Process on Their Health', above n 11, 428–9.

⁴² See, eg, Cassidy et al, above n 31, 1180–1, 1185. Cf Pryor, 'Noneconomic Damages, Suffering, and the Role of the Plaintiff's Lawyer', above n 24, 564–5.

⁴³ See, eg, Health Policy Unit, above n 15, 4; Harris et al, 'Predictors of General Health after Major Trauma', above n 29, 973.

⁴⁴ Compare the methodological categories proposed in George Mendelson, 'Compensation and Chronic Pain' (1992) 48 *Pain* 121, 121–2.

⁴⁵ See, eg, Bhandari et al, above n 33; Richard I Lanyon and Eugene R Almer, 'Characteristics of Compensable Disability Patients Who Choose to Litigate' (2002) 30 *Journal of the American Academy of Psychiatry and the Law* 400.

⁴⁶ See, eg, Cameron et al, above n 31; Cassidy et al, above n 31.

3 examination of the influence of claim-related factors within broader analyses of predictors of general health after injury.⁴⁷

In this Part, we provide some examples of these approaches.

A Comparison of the Health Outcomes of 'Litigating' and 'Non-Litigating' Injured Persons

One common approach taken in the epidemiological literature assessing LAPE involves grouping injured persons according to whether they are involved in litigation or not — in other words, differentiating them according to the presence or absence of a legal exposure — and then comparing average health outcomes across the two groups. Adopting this approach, Mohit Bhandari and colleagues conducted a prospective, observational, cross-sectional study of health outcomes among 215 orthopaedic trauma patients in Ontario, Canada.⁴⁸ Using self-reports of health status and adjusted analyses,⁴⁹ the authors found that the litigators had lower quality of life, as well as lower mental and physical health status, than the non-litigators.⁵⁰ The authors offered several possible explanations for this association: higher severity of injury among the litigators (which could not adequately be controlled for in the analysis); a 'preservation effect', whereby litigators had incentives or a predisposition to report symptoms; and the stress of litigation.⁵¹

B Comparison of Cohorts of Claimants Pre- and Post-Law Reform

A second approach taken in the literature is the use of pre-/post-analytical methods to test the impact of compensation system reforms on claimants' health status. The most prominent example is a study by David Cassidy and colleagues, published in the *New England Journal of Medicine*⁵² in 2000, which exploited a change in the compensation scheme for injured motorists in Saskatchewan, Canada.⁵³ The reform involved a shift for claimants with whiplash injuries from a tort-based system of compensation, which included damages for pain and suffering, to a no-fault compensation scheme, which did not.⁵⁴ The study compared claiming rates, health outcomes, lawyer engagement and claim

⁴⁷ Harris et al, 'Predictors of General Health after Major Trauma', above n 29.

⁴⁸ Bhandari et al, above n 33, 15–17.

⁴⁹ In epidemiological studies, 'adjustment' in analysis refers to a 'summarizing procedure for a statistical measure in which the effects of differences in composition of the populations being compared have been minimized by statistical methods. Examples are adjustment by regression analysis, by inverse-probability weighting, and by standardization': Porta, Greenland and Last, above n 8, 4.

⁵⁰ Bhandari et al, above n 33, 19–21.

⁵¹ *Ibid* 20.

⁵² With an impact factor of 52.59, the highest of any peer-reviewed medical journal, the *New England Journal of Medicine* is widely regarded as the most influential publication in science and medicine: see ResearchGATE Scientific Network, *New England Journal of Medicine* (2010) <http://www.researchgate.net/journal/0028-4793_New_England_Journal_of_Medicine>.

⁵³ Cassidy et al, above n 31.

⁵⁴ *Ibid* 1179.

duration of 3046 whiplash claimants under the tort-based scheme with those of 4416 whiplash claimants under the no-fault scheme.⁵⁵ It found decreases in the rates and duration of claims in the no-fault group, as well as faster recovery rates.⁵⁶ The authors inferred that ‘providing compensation for pain and suffering after a whiplash injury increases the frequency of claims for compensation and delays the closure of claims and recovery.’⁵⁷ They attributed this result to an atmosphere of heightened adversarialism under the tort-based scheme and to the removal of financial incentives for claimants to intentionally delay recovery under the no-fault scheme.⁵⁸ The investigators concluded that, on the basis of their findings, ‘[I]nvestigators may wish to consider the advantages of removing payments for pain and suffering from compensation systems.’⁵⁹

Ian Cameron and colleagues’ 2008 analysis of the impact of a package of reforms in the New South Wales transport accident compensation scheme took a similar approach.⁶⁰ The reforms included removal of access to pain and suffering damages for whiplash claimants,⁶¹ implementation of clinical practice guidelines for injury management and the introduction of new rules to promote earlier access to treatment and acceptance of claims.⁶² The analysis compared the health status and symptoms reported by members of three different cohorts of claimants with whiplash injuries — one pre-reform, two post-reform — two years after their injuries.⁶³ Reported levels of disability in the post-reform cohorts were significantly lower than those in the pre-reform cohort.⁶⁴ The authors concluded that the legislative changes ‘had a beneficial effect on disability, pain, and recovery’ and that compensation scheme design ‘should be undertaken with the understanding that the structure of the scheme may have substantial effects on the long-term health of injured people.’⁶⁵

C *Assessment of Multiple Claim-Related Variables within Broader Analyses of Predictors of General Health after Injury*

A third approach involves the consideration of legal and compensation process factors in studies that analyse a wide range of predictors of health status

⁵⁵ Ibid 1180–2.

⁵⁶ Ibid 1181, 1184.

⁵⁷ Ibid 1184.

⁵⁸ Ibid 1185.

⁵⁹ Ibid.

⁶⁰ See Cameron et al, above n 31, 250.

⁶¹ This was achieved by introducing an injury threshold that had the resultant effect of eliminating access to pain and suffering damages for ‘whiplash only’ claims: see *Motor Accidents Compensation Act 1999* (NSW) s 131, which precludes recovery of damages for non-economic loss unless permanent impairment is at least 10 per cent. The practical effect of this reform was to exclude such claims by persons whose sole injury was whiplash, given that such injuries rate at a maximum of 5 per cent whole-person impairment under the relevant scale: American Medical Association, *Guides to the Evaluation of Permanent Impairment* (4th ed, 1993) 104.

⁶² Cameron et al, above n 31, 250.

⁶³ Ibid 250–1.

⁶⁴ Ibid 252–3.

⁶⁵ Ibid 253.

following injury. In one such study in 2008, Harris and colleagues included several claim-related variables, alongside various demographic and clinical variables that may also have influenced the course of recovery, in an evaluation of predictors of general health after major trauma.⁶⁶ The claim-related variables were: whether or not the patient pursued a claim; compensation type ('workers compensation' or 'third party insurance'); whether or not the claim was settled ('yes' or 'no'); claim duration; the time period since settlement; the claimants' perception of who was at fault (the claimant, someone else or 'don't know'); and whether the claimant had retained a lawyer for the claim ('yes' or 'no').⁶⁷ The study focused on a sample of 731 patients who were between one and five years post-injury and used multivariate regression analysis⁶⁸ (which enables estimates of the independent effect of each variable to be made while controlling for all other variables). In summary, the results suggested that general health outcomes in this group of patients were more strongly associated with compensation factors than with the severity of the initial injury sustained by the claimant.⁶⁹ The authors concluded that:

The association between poor health and involvement in compensation and legal processes is strong, and it implies that the systems used to process claimants may be harmful to their health. Use of lawyers, the adversarial nature of the process, reliance on subjective symptoms for diagnoses, the necessity for repeated examinations for medical reports, and the bureaucratic complexity are all aspects that must be considered as contributing to this iatrogenic process.⁷⁰

IV METHODOLOGICAL PROBLEMS WITH THE LAPE LITERATURE

The preceding overview of the main methodological approaches used to study LAPE together with the results of some of the key studies illustrate the way in which epidemiological research has tackled this complex phenomenon. Several methodological problems are evident in this literature — problems that we believe have the potential to materially affect findings, but which have been either ignored or glossed over. An awareness of such systematic weaknesses in the existing evidence base is important to an overall assessment of the strength of evidence for LAPE. Furthermore, attention to these issues in future research would, we believe, help strengthen this evidence base.

In theory, the best and most reliable evidence regarding the causes of the compensation effect would come from epidemiology's 'gold standard' — the randomised controlled trial. Such a study would involve randomising persons with similar injuries into two groups, one that pursued compensation and one that did not, and then comparing health outcomes across the groups. Clearly, however, this approach to investigating LAPE is not practically, legally or

⁶⁶ Harris et al, 'Predictors of General Health after Major Trauma', above n 29.

⁶⁷ Ibid 970.

⁶⁸ Ibid 969.

⁶⁹ Ibid 969, 973.

⁷⁰ Ibid 973.

ethically feasible.⁷¹ Consequently, the epidemiological evidence must come primarily from observational studies.⁷² A number of methodological limitations inherent to observational studies constrain their ability to determine cause and effect relationships. Chief among those limitations are confounding and selection bias.⁷³ Several other limitations are evident in the studies of LAPE, including inconsistent use of outcome measurement tools⁷⁴ and jurisdictional differences in compensation schemes and practices, which undercut the generalisability of research findings beyond the study setting.

But those standard critiques aside, LAPE research to date suffers from what is potentially a much more serious limitation: its reliance on conceptualisations of the ‘exposure’ of interest that oscillate between the crude and the misinformed. A review of the LAPE studies shows serious practical and conceptual problems with the way in which the legal and administrative processes are measured and analysed.

Specifically, three general problems — or ‘fallacies’ — plague the existing literature:

- 1 the fallacy of claim classification and legal exposure;
- 2 the fallacy of legal services delivery; and
- 3 the fallacy of law reform aggregation.

These fallacies warrant closer scrutiny because they have important consequences. Inappropriate rendering of the legal and administrative processes associated with compensation is a form of measurement error. It is a well-accepted axiom of empirical research that measurement error may lead to spurious findings — either the underestimation or overestimation of the strength of the true relationship between an exposure variable and an outcome.

In the remainder of this Part, we describe the fallacies, tying them directly back to the studies reviewed in Part III. In Part V, we advance a broader thesis regarding the cause of this methodological weakness — namely, the failure of legal scholars to engage with and inform the epidemiological LAPE research — and provide some suggestions for how this problem may be addressed in future research.

⁷¹ Belinda J Gabbe et al, ‘The Relationship between Compensable Status and Long-Term Patient Outcomes Following Orthopaedic Trauma’ (2007) 187 *Medical Journal of Australia* 14, 17.

⁷² Greene, above n 33, 235–6.

⁷³ Kenneth J Rothman, Sander Greenland and Timothy L Lash, *Modern Epidemiology* (3rd ed, 2008) 202–5. ‘Confounding’ refers to ‘a mixing or blurring of effects [where a] researcher attempts to relate an exposure to an outcome, but actually measures the effect of a third factor, termed a confounding variable’: David A Grimes and Kenneth F Schulz, ‘Bias and Causal Associations in Observational Research’ (2002) 359 *Lancet* 248, 250. Grimes and Schulz note further that ‘[s]election bias stems from an absence of comparability between groups being studied’: at 248.

⁷⁴ Wise, above n 24, 35–6.

A The Fallacy of Claim Classification and 'Legal Exposure'

The epidemiological literature exploring LAPE is replete with inaccuracies in its use of legal terminology. In particular, it is often insensitive to inter- and intra-scheme differences in compensation processes.⁷⁵ Failure to take account of those differences results in the lumping together of claimants whose experiences, or exposures, may be extremely heterogeneous.

1 Inter-Scheme Variability in Exposures

Despite wide variability in modes and schemes of compensation for personal injury, most of the existing LAPE research involves homogeneous treatment of compensation types and mechanisms.⁷⁶ However, what Ellen Pryor describes as the 'compensatory fabric' actually encompasses a wide range of pathways and processes for compensation for personal injury.⁷⁷ Claimants will often confront multiple schemes, several of which may be applicable to their situation. Prominent examples include: disability pensions and other social welfare entitlements; private health and income protection insurance policies; entitlements under enduring statutory schemes of compensation (such as transport accident or workers' compensation); entitlements under 'one off' schemes of compensation (such as the United States September 11 Victims Compensation Scheme⁷⁸ and the Tasmanian Stolen Generations Compensation Scheme);⁷⁹ and civil claims in tort. Which pathways are followed depends largely on the injury type and cause, the jurisdiction in which the claim is made and the claimants' own choices. The compensatory fabric is complex, and myriad different requirements and processes are associated with accessing each form of compensation. In Australia, the considerable variation between jurisdictions adds a further layer of complexity for comparative analyses.⁸⁰

Sensitivity in LAPE analyses to details of different compensation schemes matters because the processes and pathways attached to those schemes — the legal and administrative processes associated with compensation — define the nature and extent of the exposure of interest. Consider 1000 injured persons, each a claimant in the sense that they are pursuing compensation through an established scheme but doing so through a variety of schemes that have procedures ranging from a simple letter requesting coverage to a vitriolic fight for damages in court. Collapsing the 1000 persons into a group of 'claimants' for the purposes of comparing medium-term health outcomes with a group of 'non-claimants' is fraught with difficulty. Any LAPE detected in such an analysis will

⁷⁵ For the related criticisms made by Suter in relation to the changing effect of involvement in legal processes on individual claimants over time, see Paul Bryan Suter, 'Employment and Litigation: Improved by Work, Assisted by Verdict' (2002) 100 *Pain* 249, 250.

⁷⁶ See Pryor, 'Part of the Whole', above n 31, 310, 331–2.

⁷⁷ *Ibid* 309.

⁷⁸ *Air Transportation Safety and System Stabilization Act*, Pub L No 107-42, tit IV, 115 Stat 230, 237–41 (2001).

⁷⁹ *Stolen Generations of Aboriginal Children Act 2006* (Tas).

⁸⁰ Cf Gabbe et al, above n 71, 17, calling for cross-jurisdictional cohort studies 'as there may be important differences between compensation schemes.'

be a mean effect emanating from starkly different exposures. It may underestimate or overestimate the true effect of the compensation process depending on the distribution of the exposures across persons. Moreover, opportunities for bolstering the causal inference through such conventional techniques as searching for dose–response relationships between the exposure and outcome are foregone. Yet a number of LAPE studies have proceeded on precisely this footing.

One illustrative example is the treatment of ‘ongoing litigation’ in the study by Bhandari and colleagues.⁸¹ Litigation is a precise term that refers to the pursuit of a legal claim following the issuing of formal proceedings in a court.⁸² In the personal injury law context, this would usually occur by means of a civil claim in tort. Bhandari and colleagues report that, during their study, ‘24% of patients had filed a disability claim, and 14% had *ongoing litigation*.’⁸³ No further distinction is made, however, between what it meant to be involved, or not involved, in ‘ongoing litigation’. Nor do the authors indicate whether the 14 per cent of patients who had ‘ongoing litigation’ included the group pursuing a ‘disability claim’ (presumably through statutory social security benefits) or whether these patients were confined to plaintiffs in tort actions. The nature of the legal exposure experienced by the subject claimants is therefore ambiguous and almost certainly insufficiently differentiated.

2 *Intra-Scheme Variability in Exposures*

Analogous concerns about measurement error associated with the exposure of interest also apply to the analysis of the legal experiences of claimants within single compensation schemes. Within schemes, radically different pathways exist and claimants have different experiences with processes and requirements associated with obtaining compensation. Experiences within a scheme may be conceptualised along a continuum of exposure. At one end will be claimants who have a smooth, untroubled passage through the scheme, and at the other end will be those whose passage is vexed and mired, for example, in drawn-out disputes and hostile encounters — a fight for every dollar. Claimants with very similar injuries might find themselves at opposite ends of the exposure continuum. Aggregating claimant experiences ignores the reality of such a continuum. The unstated assumption is that any one claim is much like any other.

A related problem arises with the aggregation of *pursuers* and *receivers* of compensation, which occurs not infrequently in the LAPE literature.⁸⁴ This conflation joins injured persons who have merely submitted a claim (and perhaps received statutory income benefits more or less automatically and without delay) with those who have endured months or years of protracted legal battles to have their claim accepted. Again, in empirical terms, the problem is one of misclassi-

⁸¹ Bhandari et al, above n 33, 15.

⁸² See also Wright’s comments regarding the difficulties for empirical studies posed by data on litigation: Wright, above n 14, 237–41.

⁸³ Bhandari, above n 33, 18 (emphasis added).

⁸⁴ See, eg, Harris et al, ‘Predictors of General Health after Major Trauma’, above n 29; Cameron et al, above n 31.

fication or measurement error associated with the legal exposure. This lack of specificity undermines the veracity of conclusions drawn from the analysis.

B *The Fallacy of Legal Services Delivery*

Several of the leading LAPE studies focus on the retention of a lawyer as one potential marker of the exposure of interest: they compare the health status of claimants with lawyers to that of claimants without them.⁸⁵ Using this approach, the 2008 study by Harris and colleagues reached the conclusion that the engagement of a lawyer is an important factor in predicting worse health outcomes among claimants.⁸⁶ The investigators do not elaborate on the mechanism of that effect, other than by speculating about the possible damaging effects of prolonged exposure to the adversarial legal system when lawyers get involved.⁸⁷

This approach ignores important realities in legal services markets. In Australia, the majority of legal services in the personal injury sector are provided to claimants on a conditional or ‘no win, no fee’ basis. Economic incentives dictate that an injured claimant is unlikely to attract a lawyer to their case unless the lawyer deems there to be a reasonable likelihood of success with the claim and the potential recovery is non-trivial.⁸⁸ Conventional economic accounts of tort law posit a more formal structure for these considerations: the expected value of the case (the probability of winning times the expected damages in the event of a win) must exceed the anticipated costs of running the case to make it a viable proposition from the perspective of the plaintiff’s lawyer.⁸⁹

Personal injury lawyers are unlikely to engage in that expected value calculation in any formal way, but the ‘severity’ component of the calculation is certainly front and centre in the case selection method, with assessments of claim viability directly related to the likely permanence of an injury and the nature of a claimant’s long-term impairment. This is because the major injury compensation

⁸⁵ See, eg, Harris et al, ‘Predictors of General Health after Major Trauma’, above n 29; Pryor, ‘Noneconomic Damages, Suffering, and the Role of the Plaintiff’s Lawyer’, above n 24; Cassidy et al, above n 31.

⁸⁶ Harris et al, ‘Predictors of General Health after Major Trauma’, above n 29, 973.

⁸⁷ *Ibid.* A related difficulty is the general lack of awareness throughout the LAPE studies about what the services and activities of a lawyer entail: see, eg, Ian A Harris et al, ‘The Effect of Compensation on Health Care Utilisation in a Trauma Cohort’ (2009) 190 *Medical Journal of Australia* 619, 622, where the authors conclude that ‘the use of a lawyer was strongly associated with health care utilisation. The reason for this effect is uncertain.’ In this study, the authors sought to ‘explore whether there was an association between compensation factors and health care utilisation following major trauma’: at 619. The outcome of interest, ‘health care utilisation’, was measured by asking patients ‘how many times they had visited particular health care professionals in the previous 3 months’: at 620. To a legal audience it may come as no surprise that the engagement of a lawyer might be associated with greater ‘health care utilisation’, where that outcome is measured by number of visits to professionals including medical specialists — the procurement of medico-legal evidence, necessitating examination of the claimant by a medical specialist, is a routine part of the evidence-gathering activities of lawyers.

⁸⁸ Deborah R Hensler, ‘The Real World of Tort Litigation’ in Austin Sarat et al (eds), *Everyday Practices and Trouble Cases* (1998) 155, 162–3.

⁸⁹ Cf Richard A Posner, ‘An Economic Approach to Legal Procedure and Judicial Administration’ (1972) 2 *Journal of Legal Studies* 399, 417–18.

systems in Australia (the work- and transport-related injury schemes) focus on the claimant's permanent impairment; many schemes preclude the recovery of damages altogether in instances where the injured person makes a full recovery.⁹⁰ Hence, to the extent that full or speedy recovery is evident or predictable at the time legal services are sought, it drastically reduces the chances of a lawyer taking the case. The lawyer's assessment of claim viability may be an even more potent predictor of long-term prognoses than standardised clinical metrics of injury severity because the lawyer has the medical information at hand and can bring an experienced eye to particular features of the claimant's situation that may influence recovery prospects.

The realities of case selection practices present serious problems for the type of association identified in the 2008 study by Harris and other studies in the LAPE literature that have used retention of a lawyer as an exposure variable.⁹¹ Observed associations between retention of a lawyer and poor health outcomes are likely to be less of a function of the claimant's exposure to the lawyer (and all that follows) than a function of careful 'cherrypicking' by the lawyer, who is heavily incentivised to choose claimants with injuries that cause long-term disability.

C *The Fallacy of Law Reform Aggregation*

A further problem relates specifically to the pre- and post-reform studies ('pre/post studies') described in Part III(B). To recap, this analytical approach seeks to measure the impact of compensation structures on health using a time-honoured technique in social policy research: the health status or recovery trajectory of claimants before a major change to a compensation regime is compared to the same health outcomes after the change. Differences may be attributed to the change when other possible predictors of health outcomes are controlled for. The Achilles' heel of such pre/post studies is that they do not adequately control for those other predictors. While the pre/post LAPE studies are not immune to this problem, several of the leading studies suffer from another more idiosyncratic weakness.

Tort reforms typically come in packages and consist of multiple legal and administrative changes to existing compensation practices.⁹² Attributing changes in health status to the influence of specific aspects of reform requires careful and nuanced analysis. Consider the *New England Journal of Medicine* study by Cassidy and colleagues, which concluded that '[t]he elimination of compensation

⁹⁰ In the Victorian transport accident scheme, for example, a claimant is precluded from recovering damages in respect of an injury unless either (1) their degree of permanent impairment in connection with the transport accident has been determined by the TAC to be at or above 30 per cent of the whole person, or (2) either the TAC or a Judge of the County Court of Victoria has determined that the claimant has sustained a (permanent or long-term) 'serious injury' within the meaning of the legislative definition of that term: *Transport Accident Act 1986* (Vic) s 93.

⁹¹ Interestingly, no epidemiological literature located for the purposes of this article examined the possible impact of the engagement of lawyers by a defendant insurer or compensation authority on the health outcomes of claimants.

⁹² See, eg, *Motor Accidents Compensation Act 1999* (NSW); Cameron et al, above n 31, 250.

for pain and suffering is associated with a decreased incidence and improved prognosis of whiplash injury.⁹³ In this study, the investigators measured the status of injuries via the open and closed status of claim files.⁹⁴ Yet the same no-fault reforms that cut general damages also resulted in systemic changes to claims handling practices, such as enhancement of the insurer's capacity to close claims quickly with the spectre of future litigation removed.⁹⁵ This accompanying change in practice has potentially devastating implications for the conclusions of the study. According to one critique, '[w]hat Cassidy et al have demonstrated with their study is that if an insurer is given the ability to close claims more rapidly, the insurer will do so. This finding does not come as a great surprise.'⁹⁶ The resulting problem is what epidemiologists would call a form of selection bias: the group of interest differs from the comparison group in important ways and these differences are not controlled for in the analysis.

Cameron and colleagues' analysis of the health impact of legislative reforms to the New South Wales transport accident compensation scheme⁹⁷ is also vulnerable to a related charge. This study does not seek to attribute health status to particular components of a tort reform package, but rather seeks to assess the collective effect of the reforms.⁹⁸ One element of the studied reforms was the introduction of a threshold requirement of more than 10 per cent whole-person impairment before claimants can seek damages for pain and suffering.⁹⁹ However, as the authors acknowledge, a number of other changes occurred at around the same time as the injury threshold reform, including the 'introduction of clinical practice guidelines for treatment of whiplash, regulation to ensure earlier acceptance of compensation claims, and earlier access to treatment for all types of injury.'¹⁰⁰

The package of system reforms, broadly characterised as 'legislative change',¹⁰¹ involved a mix of legal, administrative and clinical practice changes. The investigators themselves note that, although claims were processed more quickly after the reforms, 'the independent effects of the different components of the changed regulations cannot be determined.'¹⁰² From an epidemiological point of view this is a form of confounding: unmeasured dimensions of what is distinctive about cases are potentially correlated with both the outcome of

⁹³ Cassidy et al, above n 31, 1179.

⁹⁴ The authors conducted and published a supplementary analysis of their data following criticism of the use of claim closure as a proxy for injury recovery: Pierre Côté et al, 'The Association between Neck Pain Intensity, Physical Functioning, Depressive Symptomatology and Time-to-Claim-Closure after Whiplash' (2001) 54 *Journal of Clinical Epidemiology* 275.

⁹⁵ Michael D Freeman and Annette M Rossignol, 'Effect of Eliminating Compensation for Pain and Suffering on the Outcome of Insurance Claims' (2000) 343 *New England Journal of Medicine* 1118, 1119.

⁹⁶ Ibid.

⁹⁷ Cameron et al, above n 31.

⁹⁸ Ibid 250–3.

⁹⁹ See above n 61.

¹⁰⁰ Cameron et al, above n 31, 250 (citations omitted).

¹⁰¹ Ibid 250.

¹⁰² Ibid 253.

interest (health status) and the exposure of interest (exposure to the new compensation scheme).

The identification of an overall effect of improvement in health outcomes following the reforms in the study by Cameron and colleagues¹⁰³ is a valuable addition to the literature and raises the obvious question of how this improvement came about. However, the multiplicity of change in the study period, the lack of categorisation of the elements of the claims process and the ambiguous characterisation of the pool of reforms as 'legislative' are all considerations that raise doubts about the validity of the connection between specific aspects of the reforms and health status as a basis for inferring LAPE.

Despite the explicit call for further research in the *Compensable Injuries and Health Outcomes* report in 2001,¹⁰⁴ there continues to be a dearth of rigorous epidemiological investigation into LAPE.¹⁰⁵ The tenor of the LAPE studies described above is speculative. The limited number of studies that do seek to address legal process factors base their analyses, in our view, on measurements of legal exposure that are too problematic or flawed to produce reliable evidence. Hence, their utility to policymakers in informing policy, practice and reform is questionable, particularly in the politically sensitive area of injury compensation.¹⁰⁶ As Katherine Lippel proposes, what is needed is for legal and compensation process factors to 'be studied in a more refined way than as simply a binary variable to be considered in the prediction of health outcomes.'¹⁰⁷ Movement of this field of study to a more sophisticated level requires the input and engagement of scholars who understand the legal and administrative processes associated with personal injury compensation.¹⁰⁸

V WANTED: LEGAL SCHOLARS, NOW

Given the manifest methodological problems in the way the epidemiological literature to date has sought to construct and analyse the impact of the law, legal processes and legal actors in LAPE analyses, it would be tempting for the legal academy to dismiss this work. We believe that to do so would be wrong and would be to confuse the quality of a body of work with the importance of the policy problem that drives it.

It does not follow from the identification of methodological flaws in the LAPE evidence base that LAPE does not exist. On the contrary, the weight of the

¹⁰³ Ibid 252–3.

¹⁰⁴ Health Policy Unit, above n 15, 2–3, 5.

¹⁰⁵ Lippel, 'Therapeutic and Anti-Therapeutic Consequences of Workers' Compensation', above n 11, 545–6.

¹⁰⁶ See Lippel, 'Workers Describe the Effect of the Workers' Compensation Process on Their Health', above n 11, 440.

¹⁰⁷ Ibid.

¹⁰⁸ Legal researchers engaging meaningfully in this endeavour will require empirical research skills. The insufficient existing capacity of the legal academy for this work has been documented in the United Kingdom in Dame Hazel Genn, Martin Partington and Sally Wheeler, 'Law in the Real World: Improving our Understanding of How Law Works' (Final Report and Recommendations, Nuffield Inquiry on Empirical Legal Research, November 2006) chs 2–3.

evidence, flawed as it may be, points toward the existence of some positive association between exposure to the legal and administrative aspects of compensation schemes and ill health. What remains unknown, however, is the strength and nature of that relationship and the causal pathways involved. Better analyses and firmer answers are needed. And regardless of the direction this work takes, the understanding of LAPE and its outcomes is certain to have legal and policy salience.

Should more refined analyses of LAPE demonstrate that legal processes and actors do contribute negatively to the health status of compensation claimants, the challenges thrown down for the law are quite profound. What practical implications does LAPE have for the ethical and professional responsibilities of compensation authorities and lawyers working in the personal injury field?¹⁰⁹ How should the negative health effects of engagement with the compensation process be reconciled with, or traded off against, the restorative and rehabilitative objectives of personal injury compensation systems? Further, if particular health-impeding features of claims and dispute resolution processes can be identified, should governments and leaders of compensation schemes move to eliminate or reform those features?

Attention directed to the amelioration of LAPE through reform would be a strong endorsement of calls from scholars interested in the nascent field of ‘therapeutic jurisprudence’.¹¹⁰ Therapeutic jurisprudence is concerned with the ways in which legal processes, rules and actors contribute to the production of therapeutic or anti-therapeutic consequences for users of legal systems.¹¹¹ Relevantly, this analytical framework may be useful in contextualising the potential problematic effects of compensation processes within the broader spectrum of claimant experiences.¹¹² Moreover, as analytical approaches to LAPE continue to evolve, therapeutic jurisprudence may be a useful frame for examining both anti-therapeutic and restorative dimensions of compensation processes.¹¹³ Empirical LAPE research has not yet ventured into this area.

It is not difficult to see how attention to these ideas could guide concrete changes to injury compensation schemes. Consider, for example, the move in recent years toward the use of protocols for benefit delivery and pre-action

¹⁰⁹ For Huang’s discussion of similar normative considerations arising in relation to the reported emotional adaptation of injured claimants during the course of protracted civil claims, see Peter H Huang, ‘Emotional Adaptation and Lawsuit Settlements’ (2008) 108 *Columbia Law Review Sidebar* 50 <http://www.columbialawreview.org/Sidebar/volume/108/50_Huang.pdf>.

¹¹⁰ See, eg, Michael S King, ‘Restorative Justice, Therapeutic Jurisprudence and the Rise of Emotionally Intelligent Justice’ (2008) 32 *Melbourne University Law Review* 1096. For a specific discussion of a potential use of therapeutic jurisprudence in the workers’ compensation sphere, see Michael King and Robert Guthrie, ‘Using Alternative Therapeutic Intervention Strategies to Reduce the Costs and Anti-Therapeutic Effects of Work Stress and Litigation’ (2007) 17 *Journal of Judicial Administration* 30.

¹¹¹ David B Wexler and Bruce J Winick, ‘Introduction’ in David B Wexler and Bruce J Winick (eds), *Essays in Therapeutic Jurisprudence* (1991) ix, ix.

¹¹² Richard Mayou, ‘Medico-Legal Aspects of Road Traffic Accidents’ (1995) 39 *Journal of Psychosomatic Research* 789, 792.

¹¹³ Daniel W Shuman, ‘The Psychology of Compensation in Tort Law’ (1994) 43 *Kansas Law Review* 39, 76–7.

dispute resolution for transport accident claims in Victoria.¹¹⁴ The protocols were developed by agreement between stakeholders. They require the early disclosure of information and compliance with specified timelines whilst providing for fixed legal costs.¹¹⁵ Intended to reduce delay and adversarialism in the claims process,¹¹⁶ this type of reform would find powerful reinforcement from the documented existence of LAPE.

On the other hand, should more legally sophisticated investigation of LAPE suggest that there is little or no evidence of its existence, or that its effect is quite weak, this information would also have considerable social value. One danger is that overselling the evidence for LAPE may come to drive inappropriate legal reforms or fuel negative attitudes to the various participants in compensation processes. The field of personal injury law has a track record of introducing reforms that lack a solid empirical footing.¹¹⁷ This should be avoided.

In our view, the current evidence of LAPE does not provide an appropriate empirical basis for law reform,¹¹⁸ notwithstanding the growing confidence with which authors of the epidemiological studies describe their findings. Studies designed to produce speculative findings, no matter how often they are reproduced, do not add up to firm findings — a point that ought not be lost as the LAPE literature mounts. In short, the call of the *Compensable Injuries and Health Outcomes* report for further research before reform is contemplated is as credible today as it was nearly a decade ago.

VI CONCLUSION

The legal and administrative processes associated with injury compensation schemes have endured many criticisms over the years. Cost overruns, rorts, complexity, tardiness, power imbalances and moral hazard count among the perennial concerns. The idea that passage through these systems of accident compensation may damage health is a relatively new worry. To the extent that it is well founded, compensation systems may be working against themselves, undoing some of their core work in making eligible claimants ‘whole’ through compensation for their losses.

Over the last thirty years, empirical research has documented lower than expected health status among injured claimants. More recently, epidemiologists

¹¹⁴ See Victorian Law Reform Commission, *Civil Justice Review: Report*, Report No 14 (2008) 130–5.

¹¹⁵ *Ibid* 130–2.

¹¹⁶ *Ibid* 132.

¹¹⁷ See, eg, Panel of Eminent Persons, *Review of the Law of Negligence: Final Report* (2002) 32 (the Commonwealth’s review of the law of negligence, commonly known as the ‘Ipp Report’), which acknowledged the lack of empirical evidence supporting the case for law reform put forward by interest groups but then proceeded to make recommendations which had far-reaching reform implications. See also Wright, above n 14, 234, 237–41.

¹¹⁸ Note the reference made to examples of the epidemiological literature in the report of the recent review of the Victorian workers’ compensation scheme: Peter Hanks, *Accident Compensation Act Review: Final Report* (2008) 101, 104, 108, citing Gabbe et al, above n 71; Harris et al, ‘Association between Compensation Status and Outcome after Surgery’, above n 7. The report’s related reform recommendations were ultimately not adopted by the Victorian government.

engaged in this field of research have fixed their gaze on the tangle of legal and administrative processes that surround compensation schemes as a possible culprit. Evidence for this particular explanation for ill health among claimants remains rather thin, largely because studies to date have not measured the legal exposure appropriately. Nonetheless, the suggestion that compensation systems may harm, instead of or in addition to aiding, their beneficiaries is highly provocative. Legal professionals and scholars must take this suggestion seriously and respond to it appropriately.

What form should that response take? Outright rejection of the idea would be a mistake. Spirited defences of professional self-worth are understandable, especially from plaintiff lawyers in the trenches of advocacy for accident victims, but ultimately they dodge the challenge. We have argued that a valuable next step would be rigorous interdisciplinary research focused on untangling the compensation–health relationship. Such a collaborative approach stands the best chance of lighting the way forward for policymakers in both the legal and the health systems.¹¹⁹

It is not unreasonable to expect that such partnerships will be feasible and that they will ultimately succeed. Law and epidemiology are old acquaintances: findings from epidemiological research have long informed tort and environmental law and attracted the interest of legal scholars. There is ample precedent for information sharing and productive collaborations between lawyers and epidemiologists in areas ranging from the use of epidemiological evidence in civil litigation to the development of legal frameworks to address emerging public health problems.¹²⁰ Until such collaborations form and set their sights on understanding the health impacts of injury compensation systems, a new and troubling set of questions will simmer about how well those systems are performing their core functional objective: restoring claimants' wellbeing.

¹¹⁹ A similar approach is demonstrated in a relevant and emerging literature exploring the potential health benefits of legal interventions: see, eg, Barry Zuckerman et al, 'Medical–Legal Partnerships: Transforming Health Care' (2008) 372 *Lancet* 1615; David I Schulman et al, 'Public Health Legal Services: A New Vision' (2008) 15 *Georgetown Journal on Poverty Law and Policy* 729 (exploring coordinated efforts by doctors and lawyers to address the social determinants of poor health); Pascoe Pleasence and Nigel J Balmer, 'Mental Health and the Experience of Social Problems Involving Rights: Findings from the United Kingdom and New Zealand' (2009) 16 *Psychiatry, Psychology and Law* 123 (calling for the coordination of mental health and legal services in order to improve health and justice outcomes); Jean Adams et al, 'A Systematic Review of the Health, Social and Financial Impacts of Welfare Rights Advice Delivered in Healthcare Settings' (2006) 6(81) *BMC Public Health* 13 <<http://www.biomedcentral.com/1471-2458/6/81>> (finding that, while advice about welfare entitlements results in financial benefits, there is little evidence of it leading to health or social benefits, 'primarily due to absence of good quality evidence, rather than evidence of absence of an effect').

¹²⁰ Goodman, above n 8, 153–4.