

Is compensation “bad for health”? A systematic meta-review

Injury
January 8, 2010

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FROM ABSTRACT

Objective

There is a common perception that injury compensation has a negative impact on health status, and systematic reviews supporting this thesis have been used to influence policy and practice decisions.

This study evaluates the quality of the empirical evidence of a negative correlation between injury compensation and health outcomes, based on systematic reviews involving both verifiable and non-verifiable injuries.

Design

Systematic meta-review (a “review of reviews”).

Data sources

PubMed, CINAHL, EMBASE, PEDro, PsycInfo, EconLit, Lexis, ABI/INFORM, The Cochrane Library, and the AHRQ EPC were searched from the date of their inception to August 2008, and hand searches were conducted.

Review methods

Included systematic reviews examined the impact of compensation on health, involved adults, were published in English and used a range of outcome measures. Two investigators independently applied standard instruments to evaluate the methodological quality of the included reviews. Data on compensation scheme design (i.e., the intervention) and outcome measures were also extracted.

Results

Eleven systematic reviews involving verifiable and non-verifiable injuries met the inclusion criteria. Nine reviews reported an association between compensation and poor health outcomes. All of them were affected by the generally low quality of the primary (observational) research in this field, the heterogeneous nature of compensation laws (schemes) and legal processes for seeking compensation, and the difficulties in measuring compensation in relation to health.

Conclusion

Notwithstanding the limitations of the research in this field, one higher quality review examining a single compensation process and relying on primary studies using health outcome (rather than proxy) measures found strong evidence of no association between litigation and poor health following whiplash, challenging the general belief that legal processes have a negative impact on health status.

Moves to alter scheme design and limit access to compensation on the basis that it is “bad for health” are therefore premature, as evidence of such an association is unclear.

THESE AUTHORS ALSO NOTE:

“There is a commonly held view that compensation is bad for health.”

“Systematic reviews that may lead one to accept this thesis have been cited in parliamentary inquiries into compensation law and in government-sponsored websites designed to influence the practice of health professionals and insurers.”

“Despite the growing application – in policy circles and academe – of the results of these reviews, there is ongoing scientific debate about the relationship between compensation and health outcomes, and systematic reviews of this topic have presented conflicting conclusions.”

“While there is apparent interest in linking compensation with poor health status, the evidence for such an association is equivocal, conflicting, and suffering from methodological limitations.”

Systematic reviews are considered the highest level of scientific evidence, and they are therefore most influential. However, the quality of systematic reviews themselves is variable. The objective of this study was to consider if the quality of the scientific evidence of the systematic reviews that suggest poor health outcomes and the availability of compensation are correlated.

These authors used 11 studies that met their stringent inclusion criteria:

1) Nine of the 11 reviews concluded that health outcomes are poorer among people seeking or receiving compensation compared to uncompensated individuals.

However, all 9 of them were of low quality and suffered from a number of methodological flaws.

2) One other review concluded there is no evidence of an association between compensation and health outcomes.

[Scholten-Peeters G, Verhagen A, Bekkering G, van der Windt DA, Barnsley I, Oostendorp RA. Prognostic factors of whiplash-associated disorders: a systemic review of prospective cohort studies. *Pain*, 2003, 104: 303-22]

This study was judged by the authors to be the highest quality study in their review.

3) One found no scientifically admissible studies and therefore drew no conclusion.

Three of the systematic reviews pertained to whiplash injuries. Two of these reviews:

[Carroll LJ, Holm LW, Hogg-Johnson S, Côté P, Cassidy JD, Haldeman S, Nordin M, Hurwitz EL, Carragee EJ, van der Velde G, Peloso PM, Guzman J. Course and prognostic factors for neck pain in whiplash-associated disorders (WAD); Spine. 2008 Feb 15;33(4 Suppl):S83-92]

[Côté P, Cassidy JD, Carroll L, Frank JW, Bombardier C. A systematic review of the prognosis of acute whiplash and a new conceptual framework to synthesize the literature. Spine. 2001 Oct 1;26(19):E445-58.]

relied on many of the same studies and had similar conclusions: compensation results in poorer health outcomes; in fact, three of the authors are the same in each article. Interestingly, two of the shared authors are chiropractors. These same two whiplash studies used "claim duration as a proxy for recovery." This is illogical and weakens their conclusions. "There is debate about whether proxy measures of health such as return to work and time-to-claim closure are suitable, given that other factors may influence decisions about absence from work and the duration of compensation claims."

The third whiplash systematic review was considered to be the best quality study in this review, and [Scholten-Peeters, Pain, 2003] "specifically limited their focus to measures of symptoms and disability (i.e., health outcomes) and found strong evidence of no association between the legal process of litigation and recovery from whiplash."

DISCUSSION

"Those reviews that performed better in the quality assessment, investigated a single compensation scheme or process, and used health outcome measures that were conceptually close to the latent health state of interest, were considered more likely to provide the best quality of evidence about the impact of compensation on health outcomes."

"One of the reviews which found strong evidence of no association between compensation (derived through litigation) and symptoms or disability following a whiplash injury (i.e., generally a non-verifiable injury), was found to possess all three of these desired qualities." [Scholten-Peeters, Pain, 2003]

"In general, however, the primary literature upon which all of these reviews are based contains serious methodological limitations. There are problems with the way in which confounding and selection bias, inherent in the observational design of prognostic studies, are accounted for, and uncertainty about the measurement of compensation effects on health status. As a consequence, it is not possible to confirm or refute whether compensation is associated with poor health."

A significant problem with many of the reviews evaluated in this study was their failure to evaluate the quality of primary studies included in their syntheses. These primary research studies used observational (i.e., non-randomised) studies and therefore were subject to selection bias, information bias, and confounding.

"This meta-review demonstrates that calls to change scheme design or to otherwise alter the balance between the cost and availability of injury compensation on the basis that compensation is 'bad for health' must be viewed with caution by decision makers in the health, law, and insurance fields, and by consumers."

"The review considered to provide internally and externally valid results found no evidence that "compensation", or more specifically, litigation, is 'bad for health'." [Scholten-Peeters, Pain, 2003]

"Based on the current research, the question of whether injury compensation is associated with poor health outcomes among subjects with verifiable and non-verifiable injuries remains unanswered because the research in this field is hampered by methodological limitations, the intervention is heterogeneous and complicated to measure, and data on health outcomes are not routinely collected."

CONCLUSION

"There is a common perception that injury compensation has a negative impact on health status among those with verifiable and non-verifiable injuries, and systematic reviews supporting this thesis have been used to influence policy and practice. However, such reviews are of varying quality and present conflicting conclusions."

"Systematic reviews that have sought to examine the link between compensation and health outcomes are subject to the inherent methodological weaknesses of observational studies and many do not evaluate the quality of the studies that comprise the dataset for their analysis. Moreover, the extant approaches to health outcomes measurement in this literature may bear a dubious relation to the latent health state of interest, and their use is not validated."

"There is evidence from one well-conducted systematic review (focusing on one legal process and on health outcome measures) of no association between litigation and poor health outcomes among people with whiplash, contradicting the hypothesis that such an approach contributes to poorer health status."

The contention that "compensation is 'bad for health', should be viewed with caution."

KEY POINTS FROM DAN MURPHY

1) This study is the first to objectively examine the quality of systematic reviews on the topic of compensation and health status.

2) These authors used 11 studies that met their stringent inclusion criteria:

A)) One review was unable to come up with a conclusion.

B)) 9 of the 11 reviews concluded that health outcomes are poorer among people seeking or receiving compensation compared to uncompensated individuals.

However, all 9 were of low quality and suffered from a number of methodological flaws.

C)) One review concluded there is no evidence of an association between compensation and health outcomes.

[Scholten-Peeters G, Verhagen A, Bekkering G, van der Windt DA, Barnsley L, Oostendorp RA. Prognostic factors of whiplash-associated disorders: a systemic review of prospective cohort studies. *Pain*, 2003, 104: 303-22]

This study was judged by the authors to be the highest quality study in their review.

3) Three of the systematic reviews pertained to whiplash injuries.

A)) Two of these reviews [Carroll] [Cote] relied on many of the same studies and had similar conclusions: compensation results in poorer health outcomes; in fact, three of the authors are the same in each article. Interestingly, two of the shared authors are chiropractors. These same two whiplash studies used "claim duration as a proxy for recovery." This is illogical and weakens their conclusions. "There is debate about whether proxy measures of health such as return to work and time-to-claim closure are suitable, given that other factors may influence decisions about absence from work and the duration of compensation claims."

B)) The third whiplash systematic review was considered to be the best quality study in this review. [Scholten-Peeters, Pain, 2003]

It "specifically limited their focus to measures of symptoms and disability (i.e., health outcomes) and found strong evidence of no association between the legal process of litigation and recovery from whiplash."

"The review considered to provide internally and externally valid results found no evidence that 'compensation', or more specifically, litigation, is 'bad for health'."

4) “There is evidence from one well-conducted systematic review (focusing on one legal process and on health outcome measures) of no association between litigation and poor health outcomes among people with whiplash, contradicting the hypothesis that such an approach contributes to poorer health status.”
[Scholten-Peeters, Pain, 2003]

“Notwithstanding the limitations of the research in this field, one higher quality review examining a single compensation process and relying on primary studies using health outcome (rather than proxy) measures found strong evidence of no association between litigation and poor health following whiplash, challenging the general belief that legal processes have a negative impact on health status.”

5) “While there is apparent interest in linking compensation with poor health status, the evidence for such an association is equivocal, conflicting, and suffering from methodological limitations.”

6) “Moves to alter scheme design and limit access to compensation on the basis that it is ‘bad for health’ are therefore premature.”

7) “This meta-review demonstrates that calls to change scheme design or to otherwise alter the balance between the cost and availability of injury compensation on the basis that compensation is ‘bad for health’ must be viewed with caution by decision makers in the health, law, and insurance fields, and by consumers.”

8) “Based on the current research, the question of whether injury compensation is associated with poor health outcomes among subjects with verifiable and non-verifiable injuries remains unanswered because the research in this field is hampered by methodological limitations, the intervention is heterogeneous and complicated to measure, and data on health outcomes are not routinely collected.”

COMMENTS FROM DAN MURPHY

This is an important article for those who treat whiplash-injured patients. The authors note that two of the systematic reviews that concluded that compensation adversely influences health outcomes following whiplash injury suffer from methodological flaws (Cote, Spine, 2001; Carroll, Spine, 2008). Interestingly, both studies have the same chiropractic authors. The authors of this current study are critical of Core/Carroll for the use of “claim duration as a proxy for recovery.”

In contrast, the study that these authors judged to be the best quality (Scholten-Peeters, Pain, 2003) found no association between compensation and whiplash recovery.