

Discussion Paper:

The Impact of Compensation on Recovery

Why do people with compensable injuries report worse functional outcomes?

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Executive Summary

A follow-on from the recent well-received Work Health Group 'Industry Insights' events, this paper delves into some of the complexity surrounding recovery and compensation. It examines questions like:

- What is the relationship between the two?
- What is the impact that an individual's own beliefs have on their recovery and what can we learn from this?
- How can we identify these beliefs?

And while the issue is complex, there are some simple strategies that can be put in place to make a difference. This paper also discusses some of these.

...the issue of whether compensation significantly impacts recovery, and how it impacts recovery, is complex...

Industry Insight Series, Work Health Group

Partners in both research and its practical application, Work Health Group and Monash University joined forces to flesh out this topic. Many of you were intrigued by what was covered at the events and requested more in-depth information. This paper is our response.

The expert speakers have also contributed to the development of the paper, building on the information in their presentations.

Consistent with the presentation format, the discussion paper aims to:

- 1. outline the evidence-base that consistently shows that compensation may negatively impact recovery outcomes (including return to work),
- 2. summarise literature on the impact of an individuals' beliefs and perceptions about health and working and why these must be identified and addressed, and
- 3. provide various strategies which may influence a reversal of these trends.

We cannot afford to ignore the influence of compensation, and broader systems on recovery outcomes. To tease out the nuances of the issue, various anecdotes from compensation, insurance, and occupational rehabilitation have been used to illustrate and build on the evidence.

The individual, and how he/she responds to an injury and the compensation system is also highly relevant and an important target for intervention.

The final section of the paper provides more information on two recommended approaches, Behavioural Insights and Motivational Interactions, which have the potential to support improvements in recovery outcomes in this challenging area.

As always, your feedback is welcome.

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Introduction

Setting the scene

There is evidence that compensation may negatively impact recovery outcomes, including return to work, at least for some individuals. This issue has also received some recent media attention in Australia. During the launch of his book, NSW orthopaedic surgeon Professor Harris questioned whether his patients would in fact get better outcomes and recover faster if they did not have a claim for compensation. According to Professor Harris, we need to consider the possibility that sometimes healthcare professionals, including allied health and rehabilitation professionals, unintentionally and inadvertently cause harm in the process of attempting to facilitate recovery. In his book, Professor Harris describes the current climate in the field of orthopaedic surgery as a case in point. One question posed, therefore, was whether surgery can do 'more harm than good'.

NSW orthopaedic surgeon Professor Harris questioned whether his patients would in fact get better outcomes and recover faster if they did not have a claim for compensation.

Anecdotes from the compensation and occupational rehabilitation sectors

What might we expect if we compared outcomes for identical individuals – one whose injury expenses and wage replacement were covered by worker's compensation and one who suffered an identical injury at home? Hypothetically, let's compare injury outcomes for two males of the same age, both brick layers, both of whom suffered a shoulder strain injury three months ago, one while at work, and one while at home doing renovations. Let's also assume that they both received similar medical treatment immediately post injury, with follow-up physiotherapy. Based on what we know about the potential effect(s) of compensation, we might expect to see that the individual injured at home would take a few days off work as sick leave and resume his full-time work and regular duties within 2-3 weeks. What tends to occur more often for individuals with work-related compensable injuries is that the identical compensable injury triggers a wage-replacement claim of several weeks off work, with intensive physiotherapy during that period, and a prolonged return to work.

This hypothetical comparison does have evidence to support it. One early study from the trauma medicine literature, among the first to demonstrate the potential for negative impact of compensation on patient outcome, compared two groups of individuals matched for age and gender, all surgically treated for the same injury. The group receiving injury compensation benefits reported a higher number of days post-operative pain and a longer period off work than those receiving personal health insurance 'benefits' (Salcedo-Wasicek & Thirlby, 1995). More recently, a study reporting data from the Victorian Orthopaedic Trauma Outcome Registry (VOTOR) compared patient outcomes for those covered by the Victorian no-fault compensation system for transport-related injuries with outcomes for non-compensable patients.

This study found worse outcomes for those with compensable injuries, including worse self-reported physical and mental disability resulting from their injury, and a lower likelihood of Return to Work (RTW) or study (Gabbe et al., 2007).

Dr Overmeire, Occupational Physician, discussed the complexity of the system from the treating doctor's perspective at a recent forum. As opposed to the traditional biomedical treatment model that sees rehabilitation managed by the primary relationship between the treating physician and the injured patient, the workers compensation system introduces several other 'third parties' that complicate the rehabilitation process (see Figure 1). These multiple stakeholders include the workplace, insurer, rehabilitation providers, legal representatives and the regulator.

All stakeholders have to be actively engaged in order to effect a positive outcome, however, third party involvement brings with it more complexity for the treating physician. The treating doctor now needs to devote additional time to be the adjudicator and gatekeeper for the system that provides the patient with the required treatment and entitlements (Overmeire, November 2016). The therapeutic nature of the relationship can be compromised.

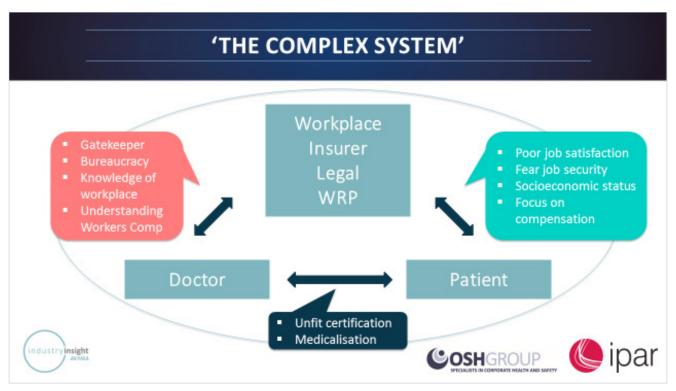


Figure 1: Schematic illustration of the 'Complex system' that an injured worker with a compensation claim must navigate (Dr S. Overmeire, 2016)

Industrial issues relating to the injured worker's employment also play a role, including job satisfaction, a perception of blame for causing the injury and key relationships at work. So too do underlying socioeconomic issues, particularly for workers who lack other skills, may need additional training and (re)consideration of future employment options. This is where the social determinants of health and psychosocial influences come into play; negative perceptions about work, worsening financial situation and poor self-efficacy are all independent risk factors for ill health. The patient/worker often begins to feel disempowered in the context of managing their recovery and RTW and may find themselves caught in a downward spiral that 'forces' a shift of focus toward their claim and their entitlements (Overmeire, November 2016).

Often an 'unfit certification' is the path of least resistance for the treating doctor, based on subjective factors such as their patient's perceptions and current state of mind. Despite the complexity of these sorts of cases, the focus tends to remain on medical issues around the primary injury, which may then lead to inappropriate medicalisation and too much focus on clinical treatments that fail to address the broader psychosocial barriers.

Particularly important to consider are those individuals who have been in the compensation system for lengthy periods of time.

"The patient often begins to feel disempowered"

Dr Steve Overmeire



These individuals tend to have a complex array of existing barriers that combine and interact to compound their disability. Work disability prevention research suggests that it is often not the primary injury or condition that is the major barrier for an individual from successfully obtaining or returning to sustained employment (Waddell & Burton, 2005). There is now broad agreement that musculoskeletal injury and associated pain should be managed according to a biopsychosocial framework that takes into account personal, psychological, social, occupational and general health factors (Waddell & Burton, 2005).

Similar insights have emerged since IPAR extended its occupational rehabilitation service provision to individuals with a variety of disabilities; those in receipt of Commonwealth funded disability employment benefits through Disability Employment Services (DES). It became apparent working with these individuals in the job seeking domain, that the beliefs and perceptions relating to an individual's health, ability/disability and working are just as important as the primary physical or psychological condition.

IPAR has developed an evidence-based assessment tool in partnership with Monash University, known as the 'Positivum Assessment'. The biopsychosocial assessment tool assesses an individual's beliefs and perceptions relating to health and work, expectations for recovery and commencement of work, self-confidence, coping skills, management of pain and daily functioning.

The use of this new biopsychosocial assessment tool has shed some further light on why those receiving compensation may be taking longer to recover and to get back to work.

Application of the Positivum Assessment

IPAR commenced utilising the Positivum Assessment with its Disability Employment Services (DES) population from March 2015. The assessment was also used in Victoria from July 2015 with a Workers Compensation cohort.

Although not directly comparable due to notable group differences (e.g. age, the nature of injury / disability, causation and employment history), having similar sample sizes enabled a broad-brush comparison of the results from each cohort, providing some interesting observations.

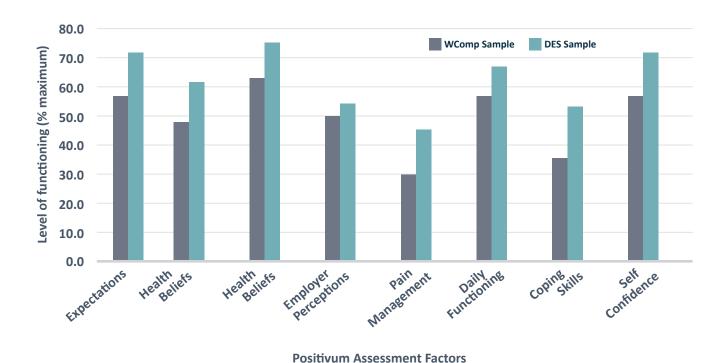


Figure 2: Biopsychosocial assessment results for the Workers Compensation and DES samples (lower scores indicate worse functioning)



Workers Compensation sample

- · Majority musculoskeletal injuries, 10% primary psychological illness at claim lodgement
- All injuries occurred at work
- Majority 18 month post-claim lodgement
- All in receipt of weekly income replacement payments
- All currently certified by treating doctor as unfit for work, with current independent medical assessor opinion suggesting some capacity for work

Disability Employment Services (DES) sample

- Wide variation in presentation, including congenital disorders, chronic conditions (e.g. post cancer or post work-related injury), intellectual disabilities and learning disorders
- Receive disability employment benefits under the Commonwealth Government
- Many have never worked

When comparing the samples across the Positivum factors (see Figure 2), it seems that despite the different referral origins, a similar Positivum results profile is shown by the two groups. The most apparent difference is that the Workers Compensation sample *show a lower level of functioning across their entire biopsychosocial profile* (and particularly for pain management and coping skills) relative to the DES sample.

It is not possible to determine how much of the biopsychosocial profile differences across the DES and WorkSafe samples can be attributed to the compensation environment. In light of the body of evidence, however, the potential impact of compensation is worth considering.

What does the scientific literature suggest?

Existing theoretical models of work disability prevention, such as the well-known Sherbrooke model (see Figure 3), suggest that RTW and recovery from injury are determined by multiple factors. That is, recovery from injury is likely to be determined by a combination of a range of individual characteristics, injury-related factors and system-related factors for each individual. Compensation / insurance system factors do feature as prominent components of existing models of work disability prevention. Other important factors outside of the compensation and insurance systems that influence RTW include:

- health care system factors (e.g. treatment type, access to health and allied health professionals)
- work setting factors (role/position, workplace accommodations, employer support), and
- societal and cultural factors

Finally, one of the most critical components of work disability prevention models is *the individual* (or 'Personal System'). For any given individual, there are many factors that combine and interact to influence recovery and RTW.



Figure 3: The Sherbrooke model of work disability prevention (Loisel et al., 2005)



The medical literature suggests that we should not ignore the influence of the compensation and other insurance systems on recovery outcomes; however, the issues of whether compensation significantly impacts recovery, and how it impacts recovery, are complex.

Research has shown solid evidence that compensation-related factors are associated with poor recovery following injury, and that this association is likely to be driven by multiple factors (Murgatroyd et al., 2015; Spearing et al., 2008).

What does this mean exactly? An association is a relationship, and without further research, it can be misleading to make assumptions about the *direction and causal factors* of that relationship. Some have assumed that the association between compensation and poorer recovery outcomes stems from the negative effect of the compensation system on an individual's recovery; this is still being debated within the medical literature. Another plausible scenario is that the association stems instead from a higher likelihood of pursuing compensation by individuals who perceive their injuries and pain to be more severe (Spearing et al., 2008).

If compensation does directly influence recovery, it is important to try to understand which aspects of the compensation systems are responsible for such an effect (Murgatroyd et al., 2015). See Table 1 for a brief overview of compensation factors that have been suggested to positively or negatively influence recovery.

Positive influence on recovery	Negative influence on recovery
Early claims lodgement	Legal representation
Early intervention and treatment	Stigmatisation of injured workers who have a claim (at work, social settings, etc)
Better access to healthcare providers (U.S. study)	Perceived power imbalance between those who have a claim and their employer / case worker
	Higher levels of stress attributed to the claims process
	Blame and/or perceived injustice

Table 1: Examples of 'compensation and associated factors' that may positively or negatively influence recovery outcomes (Based on findings from Elbers et al., 2013; Harris et al., 2008; Grant et al., 2014; Lippel, 2007; Murgatroyd et al., 2015)

The perspectives of those who are injured and receiving compensation are also important to consider.

The individual perspectives and perceptions of work, health, and compensation / insurance schemes have the potential to influence recovery and timeliness of return to work and life roles. For instance, research suggests that higher levels of stress attributed to the claims process contributes to increased disability and poor psychological function or mental health of individuals who have a claim (Elbers et al., 2013; Grant et al., 2014; Lippel, 2007).

The potential for perceived stress during the claims process is not a new concept. When it occurs, claim-related stress is generally thought to be caused by:

- often numerous assessments for claim approval and validation
- stigmatisation experienced by the injured person with a claim
- delayed claim acceptance / receipt of compensation funds
- poor insurer communication around claim-related decisions and
- the (sometimes) adversarial relationship between the injured person with a claim and insurance / compensation agent

(see e.g. (Elbers et al., 2013; Lippell, 2007; MacEachen et al., 2010))

"Personal attitudes and beliefs may dominate illness, sickness and incapacity rather than medical problems."

Professor Sir Mansel Aylward



What can schemes do to minimise any potential negative effects of compensation?

It is important to be aware of the factors that may be detrimental to recovery and RTW for those with compensable injuries or conditions (see Table 1). Schemes then need to consider what can be done to minimise these potential negative effects for individuals who have a claim. Taking each of these factors in turn, it is possible to identify simple system / procedural interventions that may help to minimise the impact of these issues. For example, the issue of the complexity of the claims process and navigating the compensation system is one that has been repeatedly identified by research as a potential contributor to delayed RTW and recovery. This issue can be addressed by implementing changes that reduce claim complexity, for example, by providing clear instructions and guidance for individuals going through the compensation process (see Figure 4 for this, and other examples). Such an intervention

would minimise the stress associated with the claims process and likely result in a more positive experience for individuals with claims.

The issue of the complexity of the claims process and navigating the compensation system is one that has been repeatedly identified as a potential contributor to delayed RTW and recovery.

Recent research has encouraged this type of reactive approach to address compensation scheme issues that have potential to negatively influence recovery. For example, the major recommendation emerging from one recent study was the need to trial early interventions and new claims management policies that could improve injury recovery and satisfaction with the claims process (Murgatroyd et al., 2015).

From interviewing those injured in motor vehicle crashes in a compensation scheme setting, such interventions could include:

- streamlining claim lodgement and treatment requests with online facilities to reduce delays
- the provision of simple, yet comprehensive information
- face-to-face communication with participant and insurer in person or online
- early identification of risk factors for poor recovery
- subsequent early and appropriate treatment referrals

It was further suggested that addressing some of the negative issues raised by those interviewed could reduce the adversarial nature of the claims process in the compensable setting and alleviate the triggers for seeking legal representation (Murgatroyd et al., 2015).



Figure 4: Potential system interventions to address compensation scheme factors associated with poor recovery / RTW outcomes (D Frost, 2016)



Minimising the negative contribution of behavioural factors

For individuals with chronic injuries receiving long-term compensation, behavioural factors are very important. These individuals are often plagued by negative beliefs and perceptions, feel disempowered, disenchanted with the system, frustrated, depressed and anxious about their future. As a result, they lack the self-confidence and drive to effectively manage their health, RTW and general recovery. Some have got to the point where they believe that the responsibility for their rehabilitation and recovery is not their own.

We can now identify those who are at high risk of delayed recovery early. The challenge is what to do to minimise the impact of behavioural factors on recovery and RTW.

Recent scientific literature has identified an individual's beliefs and perceptions about health and work, self-efficacy (confidence in one's own ability to positively manage recovery) and recovery expectations as important targets for interventions aiming to positively influence recovery outcomes.

The good news:

- We can identify those who score low on these behavioural factors via assessment tools such as Positivum
- These behavioural factors are amenable to change
- Interventions can be designed to minimise the effect of negative beliefs and perceptions

What tools and resources are already available?

What has become clear is the need for compensation and occupational rehabilitation consultants, as well as health professionals, to consider factors outside the primary injury such as life predicaments or circumstances that potentially contribute to long term work absence and delayed recovery. Medical treatment for the primary injury alone is insufficient in many circumstances.

Choosing words wisely, and using more sympathetic language shows understanding and recognition of the individual's circumstances encourages a positive relationship between consultant which can only increase the likelihood of positive outcomes. Also important is educating the injured individual about the mental and physical health benefits that work offers (Royal Australasian College of Physicians (RACP) Position Statement, 2011).

"The message is simple: fewer MRIs and more understanding".

Dr Paul Pers, GP, Fellow of the Royal Australian College of General Practitioners (FRACGP) and work injury medical consultant.

The Behavioural Insights Team (BIT) is a social purpose consultancy firm specialised in the application of insights from behavioural science to encourage people to make better choices for themselves and society. Using the principals from behavioural economics and psychology, BIT's approach applies current, evidence-based knowledge about how humans behave to design and implement better policies and services. By examining the social, cognitive and emotional behaviour of individuals and organisations as a whole, their approach impacts behaviour by implementing small changes to the way options are framed and conveyed. The Behavioural Insights Team have recently implemented trials in the area of RTW with some success in Australia and the UK.

Based on a large number of successful trials across a broad range of policy areas and countries around the world, BIT created a framework to help policymakers and researchers to design and implement cost-effective solutions. The framework is called EAST and it shows that in order to change behaviour most interventions are about making things Easy, Attractive, Social and Timely (<u>'EAST' framework</u>; The Behavioural Insights Team, 2014; see Figure 5).



Recently within Australia, a project team comprising the BIT, the NSW Department of Premier and Cabinet and the NSW Department of Education, embarked on a joint project to apply behavioural insights to RTW practices and processes with the view to encouraging people to get back to work faster.

From the fieldwork undertaken and a thorough review of communications, a number of key practices were identified that did not fully support an individual's RTW, including a focus on the worker's injured state, workers taking a passive role in their recovery and a focus on compliance. As part of the trial, a suite of interventions was designed and implemented.

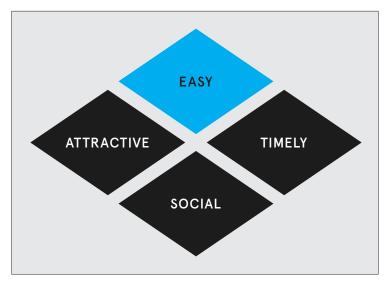


Figure 5: The Behavioural Insight Team's 'EAST' framework

Of the intervention components, those that impacted on individual beliefs included:

- Improved 'personalisation' of communications in order to increase the worker's feelings of ownership
- Consistent messaging to encourage recovery at work, and movement away from a focus on 'injury management'
- Provision of a timely recovery plan that promotes an early RTW
- Encouragement of an active role in recovery, including setting goals to support RTW

The trial ran from September 2013 until July 2014 with results indicative of a more rapid return to full capacity for workers receiving the intervention compared to a control group (The Behavioural Insights Team, 2014). In fact, the intervention group got back to work 27% faster than the control group over a 90 day period. In addition, the qualitative feedback suggested that both staff and injured workers involved found the approach more engaging.

Motivational interactions is an approach that involves using a collaborative, person-centred communication style that aims to strengthen a person's own motivation and commitment to a specific goal. The approach is used by Melbourne-based Psychologist Arthur Papagiannis to engage injured workers within compensation schemes in behaviour change and is based on the foundations of "motivational interviewing" and a well-known theoretical model of behaviour change (Papagiannis, 2014).

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27% faster than the control group over a 90 day period.

The particular health behaviour change model upon which motivational interactions is based is called the *Transtheoretical Model (TTM) of Change* (Prochaska & DiClemente, 1983). The model proposes a series of stages through which individuals need to move to reach the point at which they believe in their ability to control or manage their own recovery. A relevant adaptation of this model has since been developed specifically for those with musculoskeletal pain issues; the 'Motivational Readiness for Pain Self-Management' (Jensen et al., 2003).



This model proposes that individuals move from the 'precontemplation stage' where there is no intention or motivation to change or take on any responsibility for pain control and recovery, to the intermediate 'contemplation stage' where there is some awareness of the need to change and accept personal responsibility for controlling pain along with a certain level of resistance. The final 'maintenance stage' is reached when an individual accepts personal responsibility for the management of their pain condition (Jensen et al., 2003).

Motivational interactions and motivational interviewing (MI) can be usefully applied to help individuals move from pre-contemplation to the contemplation and preparation stages of change, thus increasing the likelihood of action. Similar to the movement through the stages of change is the notion that 'empowerment' is the key to the rehabilitation success for those with long-term disabilities. The central idea is to stimulate a shift of responsibility back to these often disempowered individuals, in order to engage them in the planning of their return to work.

MI is becoming more widely recognised as an effective engagement strategy for those working in case management roles with a variety of injured client/worker needs and challenges such as resistance, ambivalence to change and motivation issues regarding return to work. Motivational interactions focuses in particular on understanding and resolving ambivalence towards change. It also acknowledges that ambivalence is a normal part of the change process.

The role of a case management consultant is to facilitate the worker in resolving their ambivalence about change. It is important to work with a client's resistance to change and not challenge this resistance, as well as capitalise on their natural strengths and resources to strengthen confidence, readiness and commitment to take positive action (Miller & Rollnick, 2012).

This may be achieved by using the following skills (OARS)1:

- **Open questions** to strategically explore an individual's health-related goals (why they want to change, potential benefits, how they could achieve the change, etc)
- **Affirmation:** Identify individual strengths and resources to help with the change, reinforce their motivation to achieve the change, empower
- **Reflective listening:** Flesh out the details, including emotional value and meaning, identify inconsistencies between current behaviour and the individual's behaviour change goal
- **Summarise:** Help the individual by providing a clear overview of main points discussed, reiterate the overall 'plan of action' that reflects what has been discussed

The engagement of the individual during the MI process ensures that the planned behaviour change is achieved in a way that aligns with the individual's own values and goals, rather than the values and goals of others. In the context of occupational rehabilitation, MI has been identified as potentially effective in helping workers to recognise such things as the overall value and benefit of maintaining / re-engaging in employment, the potential to integrate work into personal recovery goals, concerns or fears about RTW, whilst also helping to develop positive RTW expectations (Lloyd et al., 2008). MI positively influences the quality of the working alliance between the case management consultant and injured client, which has, in turn, been shown to positively influence RTW and health outcomes. The application of MI across the compensable injury schemes in Australia has supported a Case Manager in building a greater alliance with other stakeholders involved in the return to work process, including the Treating Health Care Practitioner and Employer.

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 $^{\mbox{\tiny 1}}\mbox{Adapted}$ from A Papagiannis Comcare presentation (AP Psychology & Consulting Services)



Summary

"GPs, medical specialists and allied health professionals on the front line of sickness certification should be empowered with positive messages to provide to patients regarding work, health and wellbeing. Emphasis should be placed on the improved outcomes of people who take responsibility for their own recovery and are active players in rehabilitation and return to work" (p. 19)

Realising the Health Benefits of Work Position Statement, The Royal Australian College of Physicians (2011, p. 19)

It is reassuring to consider how far the industry has come in recent years, and particularly the heightened focus on communication — not only the need to communicate regularly, but on how we communicate with individuals who have a claim. However, the evidence outlined in this discussion paper is quite confronting in regards to the impact having a claim can potentially have on recovery and RTW. It is important that we do better, because our actions can, and do, have a significant impact on the lives of those we work with. By increasing our awareness and understanding of the emerging evidence we can move toward developing and implementing evidence-based approaches to improve our service delivery. We need to plan an approach and prioritise the introduction of key changes that will see the improvement of work-related and health outcomes for individuals within our compensation systems. If we all consider the literature, some of the recommendations and strategies put forward, and plan an approach for how we might do things differently, in the coming years we might have a very different discussion.

References

The Behavioural Insights Team (2014). EAST: Four Simple Ways to Apply Behavioural Insights. http://www.behaviouralinsights.co.uk/publications/east-four-simple-ways-to-apply-behavioural-insights/

Elbers NA, Hulst L, Cuijpers P, Akkermans AJ, Bruinvels DJ. (2013). Do compensation processes impair mental health? A meta-analysis [Review]. Injury, 44(5):674–83.

Gabbe BJ, Cameron PA, Williamson OD, et al. (2007) The relationship between compensable status and long-term patient outcomes following orthopaedic trauma. Medical Journal of Australia, 187: 14-17.

Grant GM, O'Donnell ML, Spittal MJ, Creamer M, Studdert DM. (2014). Relationship between stressfulness of claiming for injury compensation and long-term recovery: a prospective cohort study. JAMA Psychiatry, 71(4):446–53.

Harris, I. (2016). Surgery, the Ultimate Placebo. New South books.

Harris I, Young J, Jalaludin BB, et al. (2008). The effect of compensation on general health in patients sustaining fractures in motor vehicle trauma. Journal of Orthopaedic Trauma, 22: 216-220.

Lippel K. (2007) Workers describe the effect of the workers' compensation process on their health: A Québec study. International Journal of Law and Psychiatry, 30: 427-443.

Lloyd, C., Tse, S., Waghorn, G., & Hennessy, N. (2008). Motivational interviewing in vocational rehabilitation for people living with mental ill health. International Journal of Therapy and Rehabilitation, 15(12), 572-579.

Jensen MP, Nielson WR and Kerns RD. (2003). Toward the development of a motivational model of pain self-management. The Journal of Pain: Official Journal of the American Pain Society, 4: 477-492.

MacEachen E, Kosny A, Ferrier S, et al. (2010). The "toxic dose" of system problems: why some injured workers don't return to work as expected. Journal of Occupational Rehabilitation, 20: 349-366.

Miller, W. R., & Rollnick, S. (2012). Meeting in the middle: motivational interviewing and self-determination theory. International Journal of Behavioral Nutrition and Physical Activity, 9, 25-26.

Murgatroyd D, Lockwood K, Garth B, et al. (2015). The perceptions and experiences of people injured in motor vehicle crashes in a compensation scheme setting: a qualitative study. BMC Public Health, 15: 423.

Overmeire, S. (2016). Medical Perspective. The Impact of Compensation on Recovery Forum. November, 2016, Crown Casino, Perth.

Papagiannis, A. (2014). Motivational Interactions: a client-centred engagement strategy in Australian accident compensation schemes. Abstract from the International Forum on Disability Management Conference. International Journal of Disability Management, 9 (e65): 1. doi 10.1017/idm.2014.67.

Prochaska JO and DiClemente CC. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. Journal of Consulting and Clinical Psychology, 51: 390-395.

Royal Australasian College of Physicians (RACP). (2011) Position statement on realising the health benefits of work. https://www.racp.edu.au/docs/default.../realising-the-health-benefits-of-work.pdf

Salcedo-Wasicek M and Thirlby RC. (1995) Postoperative course after inguinal herniorrhaphy: A case-controlled comparison of patients receiving workers' compensation vs patients with commercial insurance. Archives of Surgery, 130: 29-32.

Spearing N, Connelly LB, Gargett S, et al. (2012). Does injury compensation lead to worse health after whiplash? A systematic review. Pain, 152: 1274-1282.

Waddell G and Burton AK. (2005). Concepts of rehabilitation for the management of low back pain. Best Practice & Research Clinical Rheumatology, 19: 655-670.

