

## Suicide Prevention Australia: 2019 Innovation Research Grant



Dr Tania King

### **Title of grant: Workplace compensation for injury and risk of deliberate self-harm**

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While workers' compensation schemes aim to assist and support injured workers, there is some evidence that the process of pursuing a compensation claim may be extremely stressful for workers. While this stress is considered to be a contributing factor in some suicides, there is a lack of evidence regarding this putative association.

This research aimed to examine the evidence of an association between workers compensation and deliberate self-harm. To do this, we firstly carried out a systematic review, and then used hospital admissions data to empirically assess this relationship between workers' compensation and self-harm. Here we describe these two separate but complementary programs of work.

#### 1. Systematic review

This aim of this systematic review was to review and synthesise international evidence of the association between workers' compensation and mental health and self-harm outcomes. We carried out a systematic review of the literature using a three-tiered search strategy across five databases (PubMed, MEDLINE, PsycINFO, Web of Science and Scopus). To be included in the review, studies must have been based on a population of employed individual and must have used workers' compensation claims as an exposure or risk factor. Eligible outcomes included mental health, self-harm, or suicide. and study participants being employed individuals. Of 4910 records arising in the search, 9 studies met the inclusion criteria. There was great heterogeneity across the nine included studies in terms of study design, patient demographics and the measurement of outcome. Of included studies, two studies reported outcomes related to suicide and seven studies reported outcomes related to mental health. Overall, most studies indicated an adverse association between

pursuing workers' compensation and mental health and suicide outcomes, however the generalisability of some of these studies is limited. There was some evidence that specific aspects of the compensation system underpinned this association, including the perception of justice, the requirement of support to navigate the claims system, involvement in litigation and whether the individual had additional sources of income.

## 2. Empirical research

The aim of this research was to compare hospital admissions for self-harm among workers' compensation claimants and non-claimants. To do this, we carried out a retrospective case-series study using hospital admissions data from the Centre for Victorian Data Linkage. We used data for 44,324 patients from Victorian hospitals (2011-2018) to estimate rates of hospital admission for intentional self-harm and probable intentional self-harm (due to intentional self-harm, poisoning, or undetermined intent). We stratified rates by gender and calculated for each age-group. We found that for males, there was no observable difference between claimants and non-claimants for admission due to intentional self-harm. For female claimants, the incidence rate for hospital admission for intentional self-harm was higher than non-claimants (relative risk (RR) 2.4, risk difference (RD) 47.7 per 100,000). For the combined category of 'self-harm and probable self-harm', the incidence rate was elevated in both male (RR 5.8, RD 167.7 per 100,000) and female workers' compensation claimants (RR 3.4, RD 114.8 per 100,000) relative to non-claimants. We concluded that female workers' compensation claimants appear to be at elevated risk of admission for intentional self-harm and 'self-harm and probable self-harm' compared to non-claimants. Male claimants appear to be at increased risk of hospital admission for 'self-harm and probable self-harm'. This suggests that the process of pursuing workers' compensation may be associated with increased risk of hospital admission for self-harm, and highlights a need for further research.

Overall, the results of these two programs of work indicate that individuals who are workers' compensation claimants may be at elevated risk of poor mental health and self-harm.

### **Outcomes of this research**

#### ***Peer-reviewed publications***

King, Disney, Sutherland, Kavanagh, Spittal, Simons. Associations between workers' compensation and self-harm: a retrospective case-series study of hospital admissions data, submitted to Occupational and Environmental Medicine.

Wadhwa, Taouk, Spittal, King. Workplace injury compensation and mental health and self-harm outcomes: A Systematic Approach, submitted to Journal of Occupational and Environmental Medicine.