

Study 1: A meta-analysis of existing knowledge

Looking at the bigger picture

The first step for the WorkplaceNL study was to establish systematically what is currently known by experts who have observed workplace injury and related mental health issues. The team carried out a cross-disciplinary meta-analysis — in other words, a large-scale rigorous review of key issues covering the broadest possible field of research enquiry in publications found in the world's largest and most relevant English language databases: Web of Science, Google Scholar, PsycINFO, and MEDLINE.

The research team carried out the most comprehensive empirical summary of the relationship between work injuries and mental health problems to date—starting with over 2,000 research studies. They were looking for clarity around three issues:

- What is the average effect size or magnitude for the relationship between work injuries and mental health? In other words, typically how strongly are work injuries and mental health connected and how consistent is that connection?
- What is the typical order of the relationship and how does order impact the strength of the linkage? Is physical work-related injury to mental health problems more strongly related than in the opposite direction?
- What are the factors, conditions, and lived experiences that might cause variations in the strength of these linkages?

Magnifying differences

After careful statistical analysis to eliminate biases from research methodology, the team was able to draw various conclusions from the findings.

First, the relationship between prior work-related injuries and later mental health problems is considerably stronger than prior mental health problems and later work injuries. It could be inferred, on the basis of the evidence, that mental health problems are more common following a work-related injury than prior to a work injury. In other words, work injuries are more likely to precede mental health problems than be the result of mental health problems.

Next, it was noted that because research tends to treat mental health like a work injury — in other words, there is a clinical cut-off where a patient is either depressed or not depressed — studies might underplay the impact of injury on long-term, underlying mental health problems. In general, the way that injuries and mental health problems are measured may cloud our understanding of how strongly they are connected.

The study also highlighted the lived experience of workers that contributes to a strong connection between work injury and mental health. Age, education, income, marital status, tenure, and work status did not change the strength of the linkage; neither did gender nor hazardous work environment. The standout finding was that visible minority status did magnify the severity of the linkage.