

# Mental Health Status of Ontario Injured Workers With Permanent Impairments

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## ABSTRACT

**Objective:** Each year, approximately 31,000 Canadian injured worker claimants are certified to have permanent impairments associated with the initial workplace incident. Permanent impairments are characterized by ongoing pain, and limitations in physical function and activity participation – all predisposing factors to mental health problems. Here we examine the post-accident mental health status of a sample of Ontario injured workers with permanent impairments.

**Methods:** We analyze data from a cross-sectional telephone survey of 494 injured workers. Mental health status is examined using nine dichotomous diagnostic, symptomatic and functional mental health indicators identified by survey respondents as non-present, or having pre- or post-injury onset, and the CES-D. We describe the relationship of these indicators and work injury, demographic and socio-economic factors.

**Results:** Post-injury onset mental health problems are elevated compared to pre-injury onset in seven of nine indicators. Diagnosed depression, medication abuse, inability to concentrate, and sleep problems are elevated compared to general Canadian population prevalence. Diagnosed depression is elevated compared to populations with pain and chronic health conditions. Higher education and pre-injury income are associated with lower depressive symptoms. Men and older individuals are less likely to report a diagnosis of depression. Older individuals are less likely to report concentration problems.

**Conclusion:** These data paint a troubling mental health picture among injured workers with permanent impairments. Implications for return-to-work and income recovery, health service access and rehabilitation within and outside the compensation system are discussed.

**Key words:** Mental health; injured workers; work injury; chronic illness

La traduction du résumé se trouve à la fin de l'article.

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Each year, approximately 260,000 Canadian workers experience “lost time” work injuries, and 31,000 go on to experience “permanent impairment”.<sup>1</sup> Pain and physical limitations – conditions that in other studies have been associated with mental health problems<sup>2,3</sup> – by definition characterize permanent impairment.<sup>4</sup> Researchers conducting qualitative studies focused specifically on injured workers with permanent impairments have documented mental health problems such as depressive symptoms, anxiety, suicidal ideation,<sup>5</sup> and erosion of sense of self.<sup>6</sup> While not previously studied in a systematic way, to our reasoning the mental health of injured workers with permanent impairments is likely poorer than that of injured workers who make a full recovery or of general populations. Injured workers with permanent impairments may require mental health services and supports outside the scope usually provided within compensation systems.

Studies illustrating risk factors for mental health problems in general and clinical samples reinforce our suggestion of elevated risk among injured workers with permanent impairments. For example, Canadian research has shown that persons with chronic physical health problems are 2.5 times as likely to suffer from a major depressive disorder<sup>2</sup> and those with chronic health conditions are 1.4 times more likely to develop major depression than those without such problems.<sup>3</sup> Gender,<sup>7</sup> age,<sup>7</sup> education,<sup>7</sup> occupational status,<sup>8</sup> and socio-economic status<sup>9</sup> have been shown to modify mental health risk in general populations.

Studies involving selective clinical samples of injured workers have shown elevated levels of mental health problems, including major depressive disorder (MDD), anxiety disorder and substance abuse.<sup>10,11</sup> High depressive symptoms were documented in 31-38% of workers with disabling upper extremity injury<sup>11</sup> and persistent disabling musculoskeletal injuries.<sup>12</sup>

Researchers have debated whether poor mental health precedes or is consequent to long-term pain and disability.<sup>13</sup> Dersh et al. found that 58% of rehabilitation patients with chronic disabling

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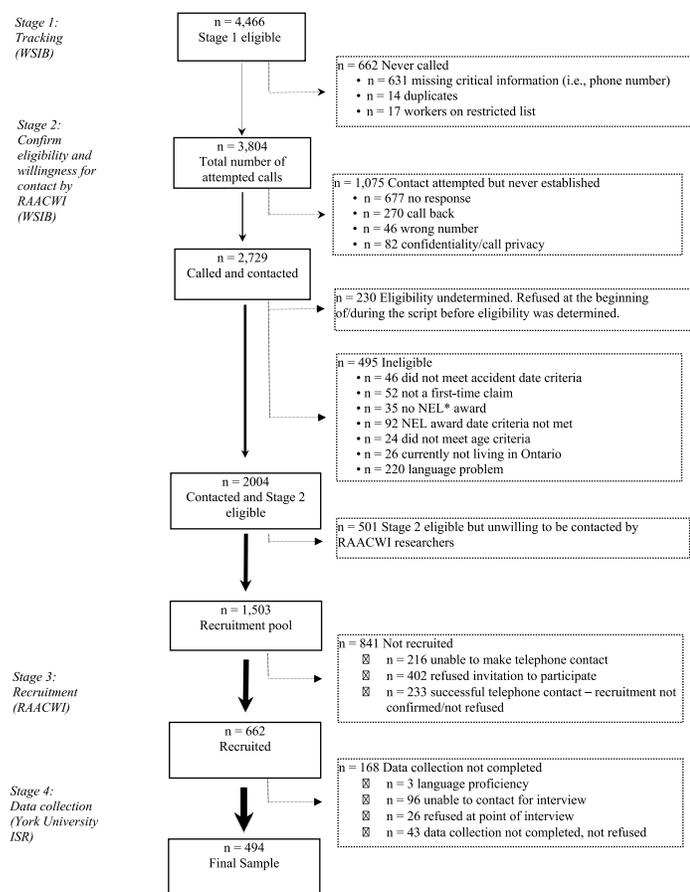
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**Conflict of Interest:** None to declare.

**Figure 1.** Recruitment procedure and participant flow



\* NEL = Non-economic loss

spinal pain had at least one psychiatric disorder that was attributed to the post-work-injury period, while pre-injury mental health diagnoses approximated base rates.<sup>14</sup>

While evidence indicates that mental health problems may be part of the experience of work injury, research describing the overall prevalence, timing and risk factors for mental health problems among injured workers with permanent impairments has not yet been completed. Consequently, we examine prevalence and timing (pre- or post-injury) of a range of mental health problems in a community sample of Ontario injured workers with permanent impairments. We assess the relationship of selected demographic and socio-economic variables with specific mental health indicators. We address the implications of our findings for policy and practice inside and outside of compensation systems.

**METHOD**

**Sample and data collection**

Data involving a sample of Ontario injured worker claimants with permanent impairments are from the Research Action Alliance on the Consequences of Work Injury (RAACWI) Health and Health Care Utilization Survey ([http://www.consequencesofworkinjury.ca/projects/health/health\\_c7ef6.htm](http://www.consequencesofworkinjury.ca/projects/health/health_c7ef6.htm))(accessed July 17, 2011). Eligibility for the study was limited to first-time/single-time, English-fluent, Ontario Workplace Safety and Insurance Board (WSIB) claimants, aged 25-55, who received a non-economic loss award certifying permanent impairment between January 2005 and

**Table 1.** Sampling Frame and Sample Characteristics

	Sample Frame N=2004	Sample N=494
Occupational Class†		
White collar	12.2%	20.6%
Pink collar	33.9%	37.8%
Blue collar	54.2%	41.6%
Gender		
Male	49.2%	39.5%
Female	50.8%	60.5%
Age (years)		
25-29	3.5%	4.7%
30-34	8.4%	7.9%
35-39	10.8%	12.0%
40-44	16.2%	14.0%
45-49	22.0%	22.5%
50-55	39.0%	38.9%

† Job and industry sector were used to identify National Occupation Classification<sup>38</sup> codes and subsequently according to occupational class (White – managerial, supervisory, professional and technical; Pink – service, support including retail trade; Blue – construction, manufacturing, trades, transportation, equipment operators, agriculture, fisheries, mining and labourers<sup>39</sup>).

November 2007 and whose workplace injury occurred between January 2002 and November 2007. Non-economic loss (NEL) benefits are provided to a WSIB injured worker claimant if he/she experiences permanent impairment from a work-related injury or illness. Permanent impairment is adjudicated through medical assessment using the American Medical Association Guidelines for the Evaluation of Permanent Impairment, Third Edition.<sup>4</sup>

Figure 1 illustrates the procedure for screening and sample selection. At the WSIB, screening for eligible participants was undertaken in a two-stage process. WSIB staff first identified an initial sampling frame of 4,466 potentially eligible participants by computer records, and then verified eligibility via telephone contact. WSIB staff produced a sampling frame of 2,004 eligible claimants, 1,503 of whom gave permission to have contact information forwarded to study investigators. The WSIB forwarded a randomly ordered contact list to RAACWI investigators. RAACWI staff proceeded with study recruitment, identifying 662 individuals who consented to participate. Data collection via telephone interview was completed for 494 of 662 recruited participants between May 2008 and May 2009 by the York University Institute for Social Research.

The study questionnaire included measures of participant-reported general mental and physical health, medical diagnoses, undiagnosed health problems, health care utilization/health care deficits and the insurance coverage or funding source of health services sought or received. Employment, education and training, income, and family/marital status were also documented, along with items enabling comparison of pre- and post-injury status (e.g., pre/post-injury diagnoses, employment, occupation, income). A range of questions about mental health status, replicated or slightly modified from key Statistics Canada health surveys (NPHS, CCHS, PALS), were included in the questionnaire. For diagnosis of depression, substance dependence, and memory impairment, participants were asked: “We are interested in ‘long-term’ conditions, that have lasted or are expected to last 6 months or more and that have been diagnosed by a health professional. Have you been diagnosed with (specified diagnosis)?” Of items relating to sleep disturbance, abuse of medication, substance abuse, problems concentrating, and depressive and anxious symptoms, participants were asked: “Do you have any additional long-term health conditions that have not

**Table 2.** Sample Characteristics

		%	(N)	Mean	Standard Deviation	Median
Gender	Male	39.5%	(195)	44	8.0	
	Female	60.5%	(299)			
Age (years)						
Educational attainment	< Secondary school	10.2%	(50)	39.4	21.0	35.0
	Secondary school (includes incomplete post secondary)	40.7%	(200)			
	Trade, college or university certificate	36.7%	(180)			
	Undergraduate or graduate degree	12.4%	(61)			
Occupational class	White	20.6%	(101)	69.3	52.6	60.0
	Pink	37.3%	(185)			
	Blue	41.6%	(200)			
Pre-injury personal income (N=484)						
Post-injury household income (N=463)						
Employment status†	Unemployed	41.9%	(197)	52	15	52
	Employed (includes leave)	57.6%	(272)			
	Voluntary retirement	0.4%	(2)			
Time from injury to survey (months)						

† Valid percent excludes 22 cases indicating don't know<sup>21</sup> and refused.<sup>1</sup>

been diagnosed by a health professional, but that, nonetheless, have an effect on your life? That is, do you experience: (specified non-diagnosed condition)?” Respondents were then asked whether each affirmed condition was present prior to the work injury or emerged following the work injury, or to indicate if they were uncertain as to its timing.

The Centre for Epidemiological Studies Depression Scale (CES-D)<sup>15</sup> was used to measure symptoms of distress in the week prior to the survey interview. The CES-D has good internal consistency and is a widely used measure of depressive symptoms, developed specifically for use in community samples.<sup>15</sup>

### Analysis

Sample characteristics are shown in relation to the sampling frame in Table 1. Women and white-collar workers are over-represented (i.e., women and white-collar workers make up 50.8% and 12.2% of the eligible sampling frame and 60.5% and 20.6% of the sample, respectively). Men and blue-collar workers are under-represented (i.e., men and blue-collar workers make up 49.2% and 54.2% of the eligible sampling frame and 39.5% and 41.6% of the sample, respectively). The age distribution of the sampling frame and sample are closely aligned.

For all mental health variables, proportions for mental health outcomes and pre- vs. post-injury emergence are reported along with 95% confidence intervals. In multivariate analysis (least squares and panel logit regression), we examine the independent association of pre- and post-injury time period, demographic and socio-economic variables (gender, age, education, occupational class, pre-injury personal income) and CES-D, diagnosed depression, symptoms of anxiety, concentration problems, symptoms of depression and sleep problems. Small cell sizes preclude inclusion of models for diagnosed dependence, memory impairment and reported alcohol abuse.

Ethics approval for the study was obtained from Trent University and York University Research Ethics Boards.

### RESULTS

Sample characteristics are summarized in Table 2. Women and men constitute 60% and 40% of the sample, respectively. The mean age ( $44 \pm 8$ , mean  $\pm$  standard deviation) is in the upper end of the inclusion range (25 to 55 years). Fifty-one percent reported having high school education or less. The median post-injury household

income (\$60K) is lower than that of the median Canadian household income (\$68.6K, 2008).<sup>16</sup> Median pre-injury personal income is \$35K. At interview (average 52 months following injury), 42% of participants were unemployed.

The prevalence of various mental health status indicators is summarized in Table 3A; the timing of onset is summarized in Table 3B along with CES-D scores. Sleeplessness, problems concentrating, symptoms of depressed mood, diagnosed depression, and symptoms of anxiety are identified as present for a large proportion (36% or greater) of respondents. Twelve percent reported ill effects from medication abuse. For those with diagnosed depression, symptoms of depression, anxiety, problems concentrating, memory impairment, medication abuse, and reports of sleeplessness, reported onset is higher in the post-injury period.

The mean CES-D depression score for the total sample is  $21.0 \pm 14.8$  (mean  $\pm$  standard deviation) – higher than the cutoff score of  $\geq 16$  suggested for clinical depression.<sup>15</sup> Fifty-four percent of the sample have a score of 16 or greater.

Regression analysis examining the relationship of specific demographic and socio-economic variables on CES-D scores (OLS) and likelihood of reporting diagnosed depression, symptoms of anxiety, inability to concentrate, symptoms of depression, and sleep problems (panel logit) is shown in Table 4.

Adjusting for the other independent variables in the model, high school or greater education and higher pre-injury personal income are independently associated with lower CES-D scores. Diagnoses and problems are more likely to be reported in the post-injury period. Being male rather than female is associated with decreased odds of diagnosed depression and sleep problems. Older age is associated with lower likelihood of reporting a diagnosis of depression and concentration problems. Higher pre-injury income is associated with a lower likelihood of reporting symptoms of depression. There is no relationship between education or occupational class and the likelihood of reporting the various mental health diagnoses or problems.

### DISCUSSION

The findings paint a troubling picture of the mental health of injured workers with permanent impairment. The general prevalence of mental health conditions in the sample is of concern, with more than one third of the sample reporting five out of nine mental health diagnoses or conditions; almost 50% reported symptoms

**Table 3A.** Percent (and N) of Respondents Reporting a Diagnosis or Problem

Mental Health Indicator	Overall Prevalence					
	Yes		No		Unsure	
	%	(N)	(95%CI)	%		(N)
Diagnosis of depression	39.7%	(196)	(39.5-39.9)	59.7%	(295)	0.6% (3)
Diagnosis of dependence	2.6%	(13)	(2.5-2.6)	97.4%	(481)	0.0% (0)
Report of medication abuse	11.5%	(57)	(11.3-11.6)	87.9%	(434)	0.6% (3)
Report of alcohol or drug abuse	2.4%	(12)	(2.3-2.5)	97.0%	(479)	0.6% (3)
Symptoms of depressed mood	49.0%	(242)	(48.8-49.1)	50.0%	(247)	1.0% (5)
Symptoms of anxiety	36.8%	(182)	(36.6-37.0)	61.3%	(303)	1.8% (9)
Problems concentrating	49.0%	(242)	(48.8-49.2)	50.4%	(249)	0.6% (3)
Reports of sleeplessness	72.3%	(367)	(72.1-72.5)	25.7%	(127)	0.0% (0)
Memory impairment	7.9%	(39)	(7.8-8.0)	91.7%	(453)	0.4% (2)
Mean CES-D score (SD)				Overall Sample		
CES-D score 16 or greater†				21.0	(14.8)	
				54.3%	(268)	

† Scale ranges from 0 to 60. Suggested cutoff for clinical depression is 16 points or greater.<sup>15</sup>

**Table 3B.** Self-reported Timing of Onset (Pre or Post Injury) of Mental Health Problems

Mental Health Indicator	Total N	Pre-injury			Post-injury			Unsure	
		%	(N)	(95% CI)	%	(N)	(95% CI)	%	(N)
Diagnosis of depression	196	19.1%	(37)	(13.6-24.6)	80.9%	(157)	(75.4-86.4)	0.4%	(2)
Diagnosis of dependence	13	61.1%	(7)	(34.6-87.6)	38.9%	(6)	(12.4-65.4)	0.0%	(0)
Report of medication abuse	57	3.6%	(2)	(0.0-8.4)	96.4%	(54)	(91.6-100.0)	0.2%	(1)
Report of alcohol or drug abuse	12	37.6%	(4)	(10.2-65.0)	62.4%	(8)	(35.0-89.8)	0.0%	(0)
Symptoms of depressed mood	242	13.3%	(32)	(9.0-17.6)	86.7%	(207)	(82.4-91.0)	0.6%	(3)
Symptoms of anxiety	182	20.6%	(37)	(14.7-26.5)	79.4%	(143)	(73.5-85.3)	0.4%	(2)
Problems concentrating	242	12.1%	(28)	(8.0-16.2)	87.9%	(210)	(83.8-92.0)	0.8%	(4)
Reports of sleeplessness	367	8.1%	(29)	(5.3-10.9)	91.9%	(334)	(89.1-94.7)	1.0%	(4)
Memory impairment	39	15.4%	(6)	(4.1-26.7)	84.6%	(33)	(73.3-95.9)	0.0%	(0)
Mean CES-D score (SD)			Pre Dx†			Post Dx‡			
			24.1 (15.0)			31.2 (14.4)			

\* Significant difference in pre-injury versus post-injury proportion p<0.001.

† Reflects CES-D scores at the time of interview among participants reporting a diagnosis of depression pre injury.

‡ Reflects CES-D scores at the time of interview among participants reporting a diagnosis of depression that was made post injury.

of depressed mood and problems concentrating; and somewhat greater than half of the sample had CES-D scores above the suggested cut-off for clinical depression.

Comparing these findings to data from the general Canadian or Ontario population, higher prevalence rates (lifetime prevalence for diagnosed depression and yearly prevalence rates for sleep problems, medication abuse, inability to concentrate and diagnosed substance abuse and memory impairment) are evident for injured workers with permanent impairments for diagnosed depression (38% vs. 12.2%),<sup>17</sup> sleep problems (75% vs. 47.7%),<sup>18</sup> medication abuse (11.7% vs. 1.7%),<sup>19</sup> and problems concentrating (41.9% vs. 10%).<sup>19</sup> Diagnosed depression rates among injured workers with permanent impairments are also higher than population samples of back pain sufferers (38% vs. 19.6%).<sup>20</sup> Memory impairment is comparable to published population data (6.1% vs. 8%),<sup>7</sup> while diagnosed substance abuse is lower than population estimates (2.8% vs. 10%).<sup>21</sup> Rates of diagnosed depression (38%) and diagnosed substance abuse (2.8%) observed in this study are lower than rates observed in a tertiary rehabilitation patient sample of injured workers for diagnosed MDD (56%) and substance abuse disorder (14%).<sup>10</sup> The proportion of the sample reporting high levels of depressive symptoms (54.3%, CES-D ≥16) is greater than that observed in a cohort of injured workers at 6 months post injury (38%)<sup>22</sup> and injured workers with upper extremity disorders at 11 to 46 months post claim (31%, 50% of these with persistent pain and activity limitations).<sup>11</sup>

Limitations of the study include reliance on self-report data, participants' recall of the timing of onset of mental health diagnoses or problems, and inference to the larger population of injured

workers with permanent impairments. Concerns exist regarding the reliability and validity of self-report survey data on mental health status, including question comprehension, task comprehension, motivation and ability to answer accurately.<sup>23</sup> In the current study, questions about the presence of psychiatric diagnoses and problems were clearly framed and broken down into discrete components. Participants were also given the option of a "don't know" response for the presence and timing of onset of each affirmative health condition, orienting the focus of response to the participants' interpretation of the presence of a problem. Participants were encouraged through indication that their responses would provide important information about work injuries for the development of sound policies.

Psychometric development studies suggest that indicators relying on episodic memory (i.e., distinct life events) provide adequate reliability and validity for sample estimates<sup>24</sup> and self-reported diagnosis provides reliable estimates compared to population estimates of psychiatric diagnoses<sup>25</sup> and interview-determined diagnosis.<sup>26</sup> In the current study, participants were asked to recount particular events around diagnosis as well as the experience of recent, distinct problems. Despite these difficulties, and in the absence of data from other sources, we feel a responsibility to report these participants' self-reported responses about the presence and timing of onset of mental health problems, but we urge readers to keep in mind the possibility of selective or faulty recall by participants.

As noted previously, the characteristics of the sample used to produce our findings do not precisely represent those of the sampling frame of eligible workers provided by the WSIB. Further, exclusion of non-English-fluent claimants limits representation from indus-

**Table 4.** Regression Models for tCES-D† (OLS), and Post-injury Participant-specified Diagnosed Depression, Symptoms of Anxiety, Concentration Problems, Symptoms of Depression and Sleep Problems (Panel Logit) by Gender, Age, Educational Attainment, Occupational Class and Income Variables‡

	OLS Model		Logistic Models			
	CES-D B (95% CI)	Diagnosed Depression OR (95% CI)	Anxiety Symptoms OR (95% CI)	Concentration Problems OR (95% CI)	Symptoms of Depression OR (95% CI)	Sleep Problems OR (95% CI)
Period§		5.52** (3.61-8.46)	5.31** (3.45-8.43)	12.89** (8.04-20.67)	10.54** (6.74-16.47)	36.78** (22.13-61.14)
Gender	-0.13 (-0.51-0.24)	0.53** (0.37-0.82)	0.72 (0.49-1.50)	0.91 (0.63-1.32)	0.89 (0.63-1.27)	0.62* (0.43-0.90)
Age	-0.01 (-0.03-0.01)	0.98* (0.95-1.00)	0.98 (0.97-1.00)	0.98* (0.96-1.00)	0.98 (0.97-1.00)	1.00 (0.99-1.03)
High school or greater¶	-0.86**(-1.39- -0.33)	0.94 (0.55-1.60)	0.74 (0.46-1.21)	1.03 (0.62-1.72)	0.73 (0.46-1.16)	0.72 (0.45-1.10)
Pink collar††	0.12 (-0.25-0.59)	1.17 (0.77-1.79)	1.23 (0.79-1.92)	1.18 (0.77-1.81)	0.77 (0.52-1.14)	1.48 (0.98-2.23)
Blue collar††	0.28 (-0.16-0.71)	0.98 (0.62-1.54)	1.15 (0.72-1.84)	1.26 (0.82-1.92)	0.81 (0.54-1.22)	1.15 (0.75-1.78)
Pre-injury income‡‡	-0.01* (-0.02- -0.01)	1.00 (0.99-1.01)	0.99 (0.99-1.00)	0.99 (0.99-1.00)	0.99* (0.98-1.00)	1.00 (0.99-1.01)
Variance accounted for§§	0.05**					

\* Significant at p<0.05; \*\* Significant at p<0.01.  
 † Raw CES-D scores were significantly positively skewed, and so were square-root transformed.  
 ‡ Variables were entered simultaneously in the equation. Models for diagnosed dependence and memory impairment were not included owing to insufficient cell sizes for some of the variables.  
 § The pre-injury period is the referent. Pre- and post-injury comparisons of CES-D scores are not possible with the available data.  
 || Women coded as 0, men coded as 1.  
 ¶ Less than high school is the referent class for education.  
 †† White-collar occupation is the referent class for occupation.  
 ‡‡ Pre-injury personal income is referent to \$1K changes in income.  
 §§ Based on adjusted R<sup>2</sup> for least squares model.

try sectors with a large non-English-speaking workforce (e.g., construction). Workers in industry sectors (e.g., finance) not covered by WSIB are not represented in this sample. Additionally, the data do not represent other injured workers in Ontario: those who have been denied claims, those not deemed to be permanently impaired, “no-lost-time” claimants, or workers injured on the job but who never filed a claim. However, the sampling and recruitment method represents our best attempt to collect detailed mental health and other information from a diverse sample of injured workers who were deemed to have sustained a permanent impairment. To the best of our knowledge, no such survey data have been collected in Ontario or Canada.

In spite of these limitations, and if the findings we present are accepted at face value, these data may suggest that becoming an injured worker claimant leads to and/or significantly exacerbates existing mental health problems, reinforcing the findings of previous studies. That injured workers are faced with the unyielding bureaucracy of compensation systems and agents,<sup>27</sup> health care providers and employers who question their legitimacy,<sup>28</sup> career disruption<sup>29</sup> and unemployment,<sup>30</sup> financial stress, job loss or change in occupation and/or workplace<sup>11</sup> could reasonably be argued to set the stage for negative mental health outcomes. Our findings provide details about the frequency and types of mental health diagnoses and conditions that might be attributable to a life change involving permanent impairment through workplace injury.

A second interpretation of the current findings may be that individuals with pre-existing mental health problems have a higher risk of becoming injured workers and entering the workers’ compensation system, thus accounting for the high prevalence rates of various mental health conditions observed here. Previous studies have independently associated negative affectivity to poor health<sup>31</sup> and occupational injury.<sup>32</sup> This study cannot specify the role of pre-existing diagnosed or latent mental health vulnerabilities in modifying the likelihood of injury, claim reporting or permanent impairment. These novel data suggest the need for further research to examine timing of onset of mental health problems and various health and functional outcomes, including employment.

Importantly, mental health problems have been shown to have a recursive relationship with return to work and employment status. Previous research has associated depressive symptoms prospectively with lower return-to-work rates among injured workers<sup>33</sup> and to unemployment in population studies.<sup>34</sup> However, depression has also been shown to be a response to unemployment<sup>34</sup> and particularly recent unemployment.<sup>35</sup> A cycle of demoralization, disadvantage and depression may produce and be produced by disability and unemployment. Those working with injured workers within compensation systems need to be aware of the potential for mental health problems becoming a significant feature of life following a workplace injury.

Regardless of the timing of onset of permanently impaired injured worker mental health problems, timely access to mental health services is an important issue for them and, therefore, for Worker Compensation Board professionals. One study reported a reduction in depressive symptoms over the course of cognitive behavioural intervention to be associated with higher likelihood of return to work following work injury.<sup>36</sup> However, compensation board policies limit support for injured workers seeking to access mental health services to those whose mental health diagnoses can be shown to have arisen as a direct result of the work injury. Many injured workers with permanent impairments may not have a formal mental health diagnosis and do not access treatment in spite of experiencing significant symptoms.<sup>22</sup> This is shown in the current analysis where the prevalence of post-injury diagnosed depression was much lower than the prevalence of self-reported symptoms of depression and of cases above the clinical cutoff on the CES-D. The absence of a medical confirmation of a mental health condition limits access to care and supports, potentially sustaining the cycle of depression and disability.

Given the risk of experiencing workplace injury facing all Canadian workers, and the risk, for some, of permanent impairment, attention to the mental health consequences of work injury ought to figure prominently in worker compensation claims adjudication. The mental health of Canadian injured workers with permanent impairments needs to be recognized as a significant public health concern.

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## RÉSUMÉ

**Objectif :** Chaque année, environ 31 000 Canadiens ayant demandé une indemnisation à la suite d'un accident de travail ont des déficiences permanentes attestées, associées à l'incident initial survenu sur le lieu de travail. Ces déficiences permanentes se caractérisent par des douleurs chroniques, des limitations des fonctions physiques et des contraintes à la participation aux activités – tous facteurs qui prédisposent aux problèmes de santé mentale. Nous examinons ici l'état de santé mentale post-accident d'un échantillon de travailleurs accidentés ontariens ayant des déficiences permanentes.

**Méthode :** Nous analysons les données d'une enquête téléphonique transversale menée auprès de 494 travailleurs accidentés. Leur état de santé mentale est examiné à l'aide de l'échelle CES-D et de neuf indicateurs dichotomiques (diagnostiques, symptomatiques et fonctionnels) de la santé mentale, définis par les répondants de l'enquête comme étant absents, apparus avant ou apparus après l'accident. Nous décrivons les liens entre ces indicateurs et les facteurs démographiques, socioéconomiques et de l'accident.

**Résultats :** Selon sept indicateurs sur neuf, l'apparition de problèmes de santé mentale est plus élevée après qu'avant l'accident. La dépression diagnostiquée, l'abus de médicaments, l'incapacité de se concentrer et les troubles du sommeil sont élevés par rapport à leur prévalence dans la population générale au Canada. La dépression diagnostiquée est plus élevée que dans les populations souffrant de douleurs et de troubles de santé chroniques. Les études supérieures et le revenu avant l'accident sont associés à des symptômes dépressifs moins prononcés. Les hommes et les personnes âgées sont moins susceptibles de faire état d'un diagnostic de dépression. Les personnes âgées sont moins susceptibles de faire état de difficultés à se concentrer.

**Conclusion :** Ces données dépeignent une image troublante de la santé mentale chez les travailleurs accidentés ayant des déficiences permanentes. Nous en expliquons les conséquences pour le retour au travail et le recouvrement des revenus, l'accès aux services de santé et la réadaptation à l'intérieur et à l'extérieur du système d'indemnisation.

**Mots clés :** santé mentale; travailleurs accidentés; accidents du travail; maladie chronique