

An International Perspective on Worker Mental Health Problems: Who Bears the Burden and How are Costs Addressed?

Carolyn S. Dewa, MPH, PhD
Centre for Addiction and Mental Health
University of Toronto



Reference

Dewa, C.S.; McDaid, D.; Ettner, S.L. An International Perspective on Worker Mental Health Problems: Who Bears The Burden and How Are Costs Addressed? *Canadian Journal of Psychiatry*. 52(6):346-356, 2007.

Acknowledgements

Ontario Ministry of Health and Long-Term Care Career
Scientist Award (2001-2006)

The Canadian Institutes of Health Research/Public
Health Agency of Canada Applied Public Health Chair

Purpose

- Discuss the nature of the two major types of burdens associated with poor mental health in workers
- Identify who bears the burden
- Examine how the rising costs associated with the burden are being addressed

Types of Burdens

- Unemployment
- Decreased productivity
- Spillover effects
- Early retirement
- Healthcare system use

Types of Burdens

- **Unemployment**
- **Decreased productivity**
- Spillover effects
- Early retirement
- Healthcare system use

Who Benefits Most from a Mentally Healthy Workforce?

- Public sector (i.e., government)
- Employers
- Workers
- Families
- Insurance companies in countries where they play a major role in healthcare services or disability benefits

Unemployment

Unemployment

- One of the major burdens of mental illness
- In the US, annually about 5-6 million people either lose, do not seek or cannot find employment due to mental illness (Marcotte & Wilcox-Gox, 2001)
- In England, employment rates are 40% lower among people with mental illness (Berthoud 2006)
- Among early intervention clients employment rates are between 13-40% (Marwaha and Johnson 2004)

Burden of Unemployment to Government

- Losses in income tax revenue
- Increased use of public safety net
 - Unemployment benefits
 - Disability insurance
 - Welfare programs
 - Healthcare

Examples of Burden

- In Finland, between 1990 and 2003, short-term sickness absence for formally diagnosed mental health problems increased by 93% (Javiasalo, et al. 2005)
 - 42% of all disability pensions were paid for mental health problems
- In the US, 25% of social security disability benefits were given to people on the basis of mental illnesses (US 2004)

Stigma - A Hurdle to Jump

- Strong negative responses to people with schizophrenia returning to their jobs (Marwaha and Johnson 2004)
- Reluctance to hire or promote people with histories of mental illness (Scheid 1999; Nicholas 1998)

Government Responses

- Enforce anti-discrimination or human rights legislation
- Offer financial incentives to counter reduced productivity costs that may be associated with reintegrating people into the workplace

Public Disability Benefits

- Inadvertently create employment disincentives
 - Observed relationship among:
 - disability benefit levels,
 - employment rates, and
 - unemployment benefit use (Westerhout 2001)

Government Dilemma & Response

- Encourage or not discourage employment while safeguarding those not capable of working
- A major fear is loss of necessary benefits (OECD 2003)
- UK Pathways to Work initiative (Corden & Nice 2006)
 - Establish a safety net to allow people who return to work to quickly obtain benefits should employment prove to be unsuccessful

Employer Responses

- Mental health literacy programs (Kitchener & Jorm 2004)
 - Evidence suggests
 - Decreased stigma
 - Increased worker confidence in helping people with mental illness
 - Increased participant mental health

Decreased Productivity

Decreased Productivity

In the workplace, decreased productivity (productivity loss) presents itself in two major forms:

- 1) **Presenteeism** = an unproductive day (e.g., an extreme effort day or a work cutback day) on which an individual went to work
- 2) **Absenteeism** = a day on which an employee did not report to work (e.g., a sick day)

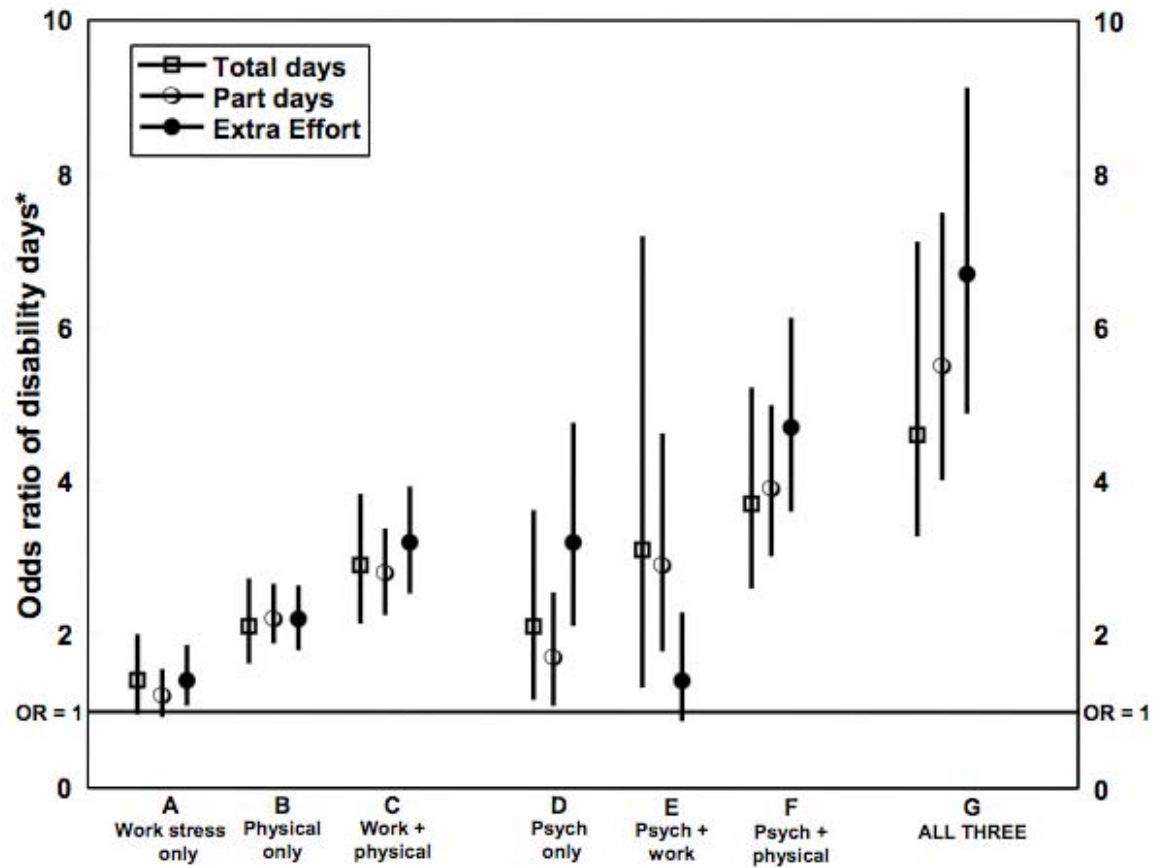
Examples of Costs

- In Sweden, > 33% of costs of all mental health problems are due to lost productivity (Institute of Health Economics 1997)
- In The Netherlands, costs of employee absence and long-term disability related to mental illness estimated to be 0.5% of GDP or €1.44 billion annually (Jarviasalo et al. 2005)
- UK study indicated depression was related to €15.46 billion in losses -- most due to decreased productivity (Thomas & Morris 2003)

The Role of Stress

- Rather than being labeled with a mental disorder, much absenteeism and illness is described as “stress”
- In the UK, stress accounts for 30% of absences (Zijlstra 2006)
- Work-related stress affects one-third of the EU’s workforce (Ivanov 2005)

Figure 1. The relationship between different levels of disability days and chronic work stress, chronic physical problems, and psychiatric disorders among workers.



* Comparison group = no chronic work stress or chronic physical illness or psychiatric disorder

Source: Dewa, C.S.; Lin, E.; Kooheorn, M.; Goldner, E. Psychiatric Disorders, Chronic Physical Conditions, Workplace Stress and Disability in the Canadian Working Population. *Psychiatric Services* 58(5): 652-658, 2007.

Worker Burden

- Reduced income while receiving disability benefits (Wang et al. 2004)
- Decreased probability of promotions or raises in their salaries (Scheid 1999; Nicholas 1998)

Government Responses

- EU ministers of health endorsed a detailed action plan calling for employers to “create healthy workplaces by introducing measures such as exercise, changes to work patterns, sensible hours and health management styles” and “to include mental health in programs dealing with occupational health and safety” (WHO 2005)

Examples of Employer Responses

- Electricite de France and Gax de France implemented *Action de prevention des rechutes des troubles anxieux et depressifs* for its 140,000 workers to promote early intervention of anxiety and depression by its occupational health physicians

Ontario Examples

Statistic by treatment assignment	Outcomes per 100 individuals (derived from)			
	Cost	Days lost per 100 individuals	Return-to- work per 100 individuals	Long term Transitions per 100 individuals
Averages				
Usual Care (n=51)	\$2,378	7,600 days lost per 100 individuals (76 days lost per individuals)	63 returns per 100 individuals (32 returns per 51 individuals)	31 transitions per 100 individuals (16 transitions per 51 individuals)
Collaborative Mental Health Care (n=73)	\$2,023	6,200 days lost per 100 individuals (62 days lost per individuals)	85 returns per 100 individuals (62 returns per 73 individuals)	7 transitions per 100 individuals (5 transitions per 73 individuals)
Differences				
Unadjusted <95% confidence interval>	\$355 less expensive <\$834 less, \$124 more>	1,500 less days lost per 100 individuals <28 less, 1 less>	22 more individuals return to work per 100 individuals <7 more, 37 more>	25 less transitions per 100 individuals <37 less, 12 less>
Adjusted by age** <95% confidence interval>	\$503 less expensive <996 less, 11 less>	1,600 less days lost per 100 individuals <30 less, 2 less>	23 more individuals return to work per 100 individuals <7 more, 39 more>	24 less transitions per 100 individuals <37 less, 10 less>

Source: Dewa, C.S.; Hoch, J.S.; Carmen, G.; Gusscott, R.; Anderson, C. An Economic Evaluation of a Collaborative Care Program for Workers Receiving Short-Term Disability Benefits for Psychiatric Disorders. *Canadian Journal of Psychiatry*. 54(6):379-388, 2009.

Length of Episode for Those Who Returned to Work

Variables	B	95% Confidence Interval
Demographic Variables		
Female	-1.63	(-11.429, 8.177)
Manager position	10.15	(2.637, 17.664)
Age (in years)	0.010	(-0.348, 0.368)
Severity & Complexity Variables		
Number of symptoms	7.52	(6.225, 8.813)
Depression only	-5.28	(-11.453, 0.888)
One antidepressant fill only	29.88	(6.494, 53.269)
One antidepressant exclusively	41.70	(18.122, 65.281)
Switched antidepressants	60.24	(36.689, 83.781)
Augmented antidepressants	62.13	(35.458, 88.797)
Guideline Recommended Use Variables		
% Used recommended 1 st line agent	-8.48	(-30.000, 13.046)
% Used recommended dose	-4.87	(-17.355, 7.614)
% Used within 30 days of SDIS start	-24.18	(-34.952, -13.417)
Company Fixed Effects		
Company 1	-38.58	(-55.051, -22.107)
Company 2	-21.59	(-28.381, -14.797)
Constant	47.19	(31.111, 63.065)

Source: Dewa, C.S.; Hoch, J.S.; Lin, E.; Paterson, M.; Goering, P. The Relationship Between Guideline Concordant Treatment of Depression and Short-Term Disability. *British Journal of Psychiatry*. 183:507-513, 2003.

An Example of a Workplace Intervention

	Used Pedometer (n=22)		Did Not Use Pedometer (n=6)	
	Baseline	1-month	Baseline	1-month
BMI	24.4 ± 3.1 (23.0 – 25.9)	24.5 ± 3.3 ^b (23.0 – 26.0)	26.1 ± 8.4 (17.3 – 35.0)	29.4 ± 3.3 (25.3 – 33.5)
Average time sitting/day (in min)	505.9 ± 137.1^a (445.1 – 566.7)	396.1 ± 165.7 (332.7 – 469.6)	475.0 ± 111.3 (358.2 – 591.8)	480.0 ± 125.9 (347.9 – 612.1)
PPA	3129.1 ± 2171.6 (2082.4 – 4175.8)	3697.5 ± 2713.1 (2389.9 – 5005.2)	3425.8 ± 3297.1 (-34.4 – 6885.9)	2907.8 ± 3072.5 (-1981.3 – 7796.8)
Mental health status	49.7 ± 7.0^a (46.4 – 52.9)	54.2 ± 4.5^c (52.2 – 56.1)	48.8 ± 15.8 (29.2 – 68.4)	38.8 ± 6.9 (30.2 – 47.4)
Physical health status	56.2 ± 3.8 ^b (54.4 – 58.0)	54.5 ± 5.8 (51.9 – 57.0)	39.2 ± 18.1 (16.8 – 61.7)	43.9 ± 16.6 (23.3 – 64.5)

Note: 95% confidence intervals in parentheses.

a = significant difference between baseline and 1-month p<0.01.

b = significant difference between the group that used pedometer and the group that did not: p<0.05.

c = significant difference between the group that used pedometer and the group that did not p<0.01.

Source: Dewa, C.S.; deRuiter, W.; Chau, N.; Karioja, K. Walking for Wellness: Using Pedometers to Decrease Sedentary Behaviour and Promote Mental Health. *International Journal of Mental Health Promotion*. 11(2): 24-28, 2009.

Conclusions

- Mental illness is associated with a wide range of costs distributed among multiple stakeholders
- Costs are interrelated -- attempts to decrease the burden on one will affect other stakeholders
- If benefits are divided among multiple stakeholders, no one stakeholder will have sufficient incentive to take on the entire problem

Implications

- There is a need to improve collaborations among stakeholders
 - Employer-government
 - Worker-government
 - Employer-worker
 - Healthcare-employer-worker
 - Within government



We Can Do It: Evidence and Interventions for Transforming Mental Health in the Workplace

4th Annual Canadian Congress for Research on Mental Health and Addiction in the Workplace

The 4th annual Canadian Congress on Mental Health and the Workplace is the leading Canadian forum of its kind dedicated to exchanging scientific evidence to improve the working environment and the mental health of workers. During this two and a half day Congress, hundreds of researchers, business leaders, policy-makers, service providers and workers will gather to share information on the latest research and evidence-based interventions focusing on five main areas:

- Workplace Prevention and Promotion
- Disability Management and Return to Work
- Diagnosis and Treatment
- Stigma/Discrimination
- Workplace Mental Health and Addiction Policies

The connections made will transform mental health in the workplace. We can do it!

When: October 28, 29, 30, 2009

Where: The Westin Harbour Castle
Toronto, Ontario

Sponsors: Canadian Institutes of Health Research (CIHR)

Centre for Addiction and Mental Health's Work and Well-being Research and Evaluation Program

For More Information:

Please visit the congress website at:

www.wrepcamh.org or e-mail secretariat@wrep.org