The Association of Treatment of Depressive Episodes and Work Productivity

Carolyn S Dewa, MPH, PhD[1]; Angus H Thompson, PhD[2]; Phillip Jacobs, PhD[3]

Objective: About one-third of the annual $51 billion cost of mental illnesses is related to productivity losses. However, few studies have examined the association of treatment and productivity. The purpose of our research is to examine the association of depression and its treatment and work productivity.

Methods: Our analyses used data from 2737 adults aged between 18 and 65 years who participated in a large-scale community survey of employed and recently employed people in Alberta. Using the World Health Organization's Health and Work Performance Questionnaire, a productivity variable was created to capture high productivity (above the 75th percentile). We used regression methods to examine the association of mental disorders and their treatment and productivity, controlling for demographic factors and job characteristics.

Results: In the sample, about 8.5% experienced a depressive episode in the past year. The regression results indicated that people who had a severe depressive episode were significantly less likely to be highly productive. Compared with people who had a moderate or severe depressive episode who did not have treatment, those who did have treatment were significantly more likely to be highly productive. However, about one-half of workers with a moderate or severe depressive episode did not receive treatment.

Conclusions: Our results corroborate those in the literature that indicate mental disorders are significantly associated with decreased work productivity. In addition, these findings indicate that treatment for these disorders is significantly associated with productivity. Our results also highlight the low proportion of workers with a mental disorder who receive treatment.

Can J Psychiatry. 2011;56(12):743–750.

Clinical Implications

- Although they may remain at work, workers with depression are subject to decreased work productivity.
- There is a positive association between treatment and work productivity.
- A significant proportion of workers who have moderate and severe depressive episodes may not access mental health treatment.

Limitations

- The measures used in these analyses depended on self-report, thus they may be subject to reporting bias.
- Because cross-sectional data were used, statements about causality cannot be made. It may be that respondents who were highly productive and used treatment may have done so because their depression was less severe than those who did not use treatment.
- The survey sample had an overrepresentation of females. If female workers are more likely to seek treatment than male workers, the proportion of workers with depression who used treatment could have been overestimated.

Key Words: *disability, workplace, depression, productivity*

The annual cost of mental disorders to the workplace is primarily associated with decreased productivity. In North America, the estimated annual societal cost of mental disorders is US$ 83.1 billion.[1] Between 30% and 60% of the societal cost of depression is related to losses associated with decreased work productivity.[1,2] Canadian estimates indicate productivity losses related to mental disorders total about Can$17.7 billion, annually.[3]

Part of the burden has been attributed to people with a mental disorder, compared with the rest of the working population, having greater numbers of days during which they are either unproductive or unable to function at full capacity.[4,5] One of the ways that employers have helped to decrease the impact of mental disorders is by providing employees access to health care services through health care benefits and services, such as EAPs.

Nevertheless, over time, the costs of providing these benefits have increased significantly, such that some employers have experienced double-digit increases in health insurance premiums.[6] This raises the question of the extent to which there are direct benefits to employers for providing health care benefits to their workers. There is growing evidence that there is an inverse relation between health care service use and disability.[7,8] That is, increased use of mental health services can lead to lower functional impairment. Interestingly, the results of population-based studies have found opposite results; workers who received treatment were less productive.[9,10] Our paper's purpose is to add to the research findings, using data from a large survey of adults who were in the workforce and residing in Alberta.[11] Specifically, we examine the association of depressive disorder and its treatment on work productivity.

Background

Decreased performance at work accounts for a significant proportion of the burden of mental disorders at work.[4,9,12,13] Studies estimate that major depression is associated with an 11% decrease in productivity.[14]

There are numerous ways in which mental disorders decrease productivity at work. They can interfere with a worker's social participation, comprehension, communication, and day-to-day functioning.[15] Depression is found to limit performance of physical jobs an average of 20% of the time, and mental interpersonal demands 35% of the time, on average.[16]

People with more severe depression have been reported to have more job performance deficits than those with moderate or mild depression, and people with dysthymia had fewer job performance deficits than patients with major depression.[16] In a recent systematic review, Lagerveld et al[17] reported that worker demographic characteristics, such as age, sex, education, and occupation, are also related to work productivity.

Building on previous work,[4,5] our study uses population-based epidemiologic survey data to explore the relations among depression, mental health contacts, and work productivity in a working population. Because the data used are cross-sectional, our study cannot make statements about causality. However, the data allow us to examine whether there is an association between depression, mental health service use, and work productivity.

Abbreviations

AUDIT	Alcohol Use Disorders Identification Test
DAST	Drug Abuse Screening Test
DSM	Diagnostic and Statistical Manual of Mental Disorders
EAP	employee assistance program
HPQ	Health and Performance Questionnaire
ICD	International Classification of Diseases
MINI	Mini International Neuropsychiatric Interview
WHO	World Health Organization

Methods

Study Population

Our analyses are based on responses from the 2737 adults aged between 18 and 65 years who completed a telephone questionnaire administered by professional interviewers during the period from late August 2009 to late November 2009. Adults who were living in Alberta and were in the workforce during the 12 months preceding the survey were eligible for inclusion. Random digit dialing was used to call potential participants. On telephone contact, interviewers informed potential respondents that their participation was confidential and voluntary. They could refuse to participate in the survey or refuse to answer any questions at any point during the interview without any repercussions. Our study was approved by the Health Research Ethics Board of the Faculty of Medicine and Dentistry, University of Alberta.

The overall response rate was 42.3% of people contacted. However, with an ongoing quality improvement approach for the recruitment strategies that included identification of effective interviewers,[18] the response rate improved during the course of data collection. In the first 2 weeks of data collection, before the quality improvement initiatives, the response rate was 28.8% and 27.0%, respectively. After the quality improvement, response rates for the final 2 weeks (of a total 13 weeks) were 72.5% and 72.8%, respectively.

Dependent Variable

The interview included items from the WHO's HPQ.[12] The HPQ is a validated self-report instrument designed for population-based surveys to measure work performance.[12] The questionnaire uses a set of questions designed to improve the accuracy of responses through memory priming and internal anchoring by asking respondents to reflect on their typical performance, those of others in similar jobs, and their most recent job performance. Using the Kessler

et al[12] scoring rule, the absolute work performance score was calculated for each respondent based on responses to the question, "Using the same 0–10 scale, how would you rate your overall job performance on the days you worked during the past 4 weeks (28 days)?" Following the method used by Kessler et al,[12] developers of the HPQ, we created a categorical variable to identify people who were highly productive. Kessler et al[12] note that use of categories make the results more salient for managers, who generally seek to identify the extremes—people who are highly productive and those who require remediation. For the purposes of our analyses, we focused on people who were highly productive and, accordingly, we created a dummy variable, which indicated whether respondents were in the top quartile (highly productive) or below (not highly productive).

Independent Variables

Demographic Characteristics. Demographic characteristics included sex (male or female), age in years at the time of the interview, marital status (single or never married; married; and separated, divorced, or widowed), race (white or nonwhite), annual household income, and educational status (did or did not completed high school).

In addition, occupation variables were also created to indicate whether the respondent was in 1 of 8 occupational groups: managerial or professional; proprietor; clerical or office worker; sales; services; farmer, forestry, or mining; manufacturing, construction, or equipment handling; or other.

Organization Characteristics. An estimate of organization and (or) business size, based on the number of employees, was created with 3 categories: 49 or less employees, 50 to 99 employees, and 100 or more employees.

Depressive Disorder and Severity. Four indicator variables were created to capture the presence as well as the level of severity of depressive disorder during the past 12 months. The presence of a depressive disorder was determined based on responses to the MINI.[19] The MINI was specifically developed for use in multi-centre clinical trials and for epidemiologic surveys to provide a rapid and accurate evaluation of the presence of diagnoses that meet criteria of the DSM-IV and the International Classification of Diseases, 10th Revision. This measure was designed to be compatible with DSM-IV criteria.

Based on the number of depression symptoms, our analyses employed approaches similar to those used by Broadhead et al[20] and Kessler et al[21] to define level of depression severity: mild, moderate, or severe.[22] All respondents who were in one of these severity categories showed 2 weeks or more of seriously depressed feeling or loss of interest in life's activities or both. Respondents who had 2 additional secondary symptoms or less were considered to have mild depression; those who had 3 to 5 additional secondary symptoms were categorized as having moderate depression; and those who had 6 or more additional secondary symptoms were categorized as having severe depression. Secondary symptoms included appetite disruption (over- or undereating), sleep difficulties, slowness or restlessness, low energy, feelings of low self-worth and (or) guilt, problems of concentration, and suicidal ideation. Respondents who did not fall into any of these categories were coded as not having a depressive episode during the past 12 months.

The presence of alcohol or illicit drug problems were reflected in respondents' answers to 2 tests: the AUDIT[23] and the DAST.[24] These tests include questions about past-year consumption levels, frequency of consumption, and impact of behaviours related to substance use. An overall score is given that rates the severity of each person's substance use.

Specifically, the AUDIT consists of 10 questions aimed to identify at-risk drinkers; AUDIT scores range from 0 to 40. The scale categorizes drinkers' level of risk for the harmful or hazardous effects of chronic alcohol use and creates 4 risk categories. The DAST consists of 10 questions, uses a scale of 0 to 10 to assess the degree of problems associated with nonmedical use of drugs, and creates 4 problem levels.

Accessed Mental Health Treatment. Respondents were also asked, "In the past 12 months did you see someone for a mental health problem?" All respondents who indicated they either saw a psychiatrist, psychologist, counsellor, social worker, or an EAP contact in the past 12 months for a mental health problem were coded as having accessed mental health treatment.

Analyses

Chi-square tests were used to examine the differences in the prevalence rates for particular characteristics for people who had high work productivity and those who did not in the past 4 weeks. Logistic regression analysis was used to examine the association between high productivity and individual organization characteristics, experience of mental illness, and treatment for mental illness.

Results

Among people in the high productivity group (Table 1), there were significant differences regarding sex ($\chi^2 = 15.68$, $df = 1$, $P < 0.001$); there was a lower proportion of males in the high productivity group. There were also significant differences regarding age ($\chi^2 = 22.35$, $df = 5$, $P < 0.001$). There were higher proportions of workers in the older age groups in the high productivity group.

The logistic regression results are contained in Table 2. The regression model produced 60.3% concordant and 38.8% discordant predicted probabilities and observed responses. The Hosmer-Lemeshow goodness-of-fit test was $\chi^2 = 9.56$, $df = 8$, $P = 0.3$. These results indicate the null hypothesis that the model fits the data and the model has adequate goodness of fit and cannot be rejected.

The results suggest that the odds of being in the high productivity group is significantly lower for males (OR 0.62, 95% CI 0.50 to 0.79) and for workers who experienced a severe depressive episode in the past year (OR 0.13, 95% CI

Table 1 Population characteristics

	Total		High productivity		Not high productivity		Statistical tests[a]
Variable	%	*n*	%	*n*	%	*n*	χ^2, *df*, *P*
Sex							15.68, 1, <0.001
Male	40.68	1004	33.97	213	42.97	791	
Female	59.32	1464	66.03	414	57.03	1050	
Age, years							22.35, 5, <0.001
<26	8.63	213	8.77	55	8.58	158	
26 to 30	7.21	178	5.10	32	7.93	146	
31 to 40	23.01	568	18.18	114	24.65	454	
41 to 50	30.05	742	32.38	203	29.23	539	
51 to 60	25.15	621	27.75	174	24.27	447	
>60	5.95	147	7.81	49	5.32	98	
Race							0.026, 1, 0.87
Nonwhite	11.05	268	10.88	67	11.11	201	
White	88.95	2157	89.12	549	88.89	1608	
Marital status							5.22, 2, 0.07
Single	13.50	329	11.68	71	14.11	258	
Married	74.23	1809	73.85	449	74.36	1360	
Separated, divorced, or widowed	12.27	299	14.47	88	11.54	211	
Education							2.69, 1, 0.10
No high school diploma	4.20	103	5.34	33	3.84	70	
High school diploma	95.80	2352	94.66	585	96.19	1767	
Depressive episode	8.54	210	7.37	46	8.94	164	1.46, 1, 0.23
Mild	1.79	44	1.44	9	1.91	35	0.57, 1, 0.45
Moderate	4.35	107	4.33	27	4.36	80	0.001, 1, 0.97
Severe	2.40	59	1.60	10	2.67	49	2.27, 1, 0.13
Substance use problem	6.91	168	6.51	40	7.04	128	0.19, 1, 0.66
Use mental health treatment	7.61	188	7.66	48	7.60	140	0.002, 1, 0.96
Occupation							7.10, 7, 0.42
Manager–professional	41.23	1016	38.24	239	42.25	777	
Proprietor	10.43	257	12.48	78	9.73	179	
Clerical–office worker	10.23	252	11.20	70	9.90	182	
Sales	6.17	152	6.24	39	6.14	113	
Services	17.69	436	17.60	110	17.73	326	
Farmer	4.14	102	3.52	22	4.35	80	
Maintenance	8.60	212	9.12	57	8.43	155	
Other	1.50	37	1.60	10	1.47	27	
Business size, employees							2.34, 2, 0.31
<50	37.88	900	40.51	239	37.01	661	
50–99	7.79	185	7.29	43	7.95	142	
>100	54.34	1291	52.20	308	55.04	983	

[a] For differences between proportion, with high and not high productivity groups

Table 2 Logistic regression results: outcome = high productivity

Variable	Logistic regression coefficient	OR	95% CI
Intercept	–1.77		
Male	–0.47	0.62[a]	0.50 to 0.79
Age (continuous)	0.021	1.021[a]	1.011 to 1.031
Nonwhite	0.11	1.11	0.81 to 1.54
Marital status (Reference group: separated, divorced, or widowed)			
Married	–0.12	0.89	0.66 to 1.19
Single	–0.063	0.94	0.62 to 1.42
No high school diploma	0.069	1.07	0.65 to 1.77
Mild depressive episode	–0.32	0.73	0.29 to 1.80
Moderate depressive episode	–0.53	0.59	0.29 to 1.23
Severe depressive episode	–2.08	0.13[b]	0.017 to 0.93
Used mental health treatment	–0.42	0.66	0.36 to 1.20
Mild depressive episode × Used mental health treatment	0.068	1.070	0.098 to 11.64
Moderate depressive episode × Used mental health treatment	1.31	3.72[b]	1.22 to 11.41
Severe depressive episode × Used mental health treatment	2.36	10.57[b]	1.11 to 100.27
Any substance use problem	0.037	1.038	0.66 to 1.64
Substance use problem × Used mental health treatment	0.46	1.58	0.57 to 4.40
Occupation (Reference group: clerical–office worker)			
Manager–professional	–0.074	0.93	0.66 to 1.31
Proprietor	0.21	1.24	0.79 to 1.94
Sales	0.10	1.11	0.67 to 1.83
Services	–0.0098	0.99	0.67 to 1.47
Farmer	0.10	1.11	0.60 to 2.044
Maintenance	0.31	1.37	0.84 to 2.21
Other	0.27	1.31	0.55 to 3.17
Business size, employees (Reference group: <50)			
50–99	–0.14	0.87	0.58 to 1.30
>100	–0.097	0.91	0.72 to 1.14

[a] $P < 0.001$; [b] $P < 0.05$

0.017 to 0.93). There is also a significant positive association with severity of the past-year depressive episode and accessing mental health treatment. The logistic regression coefficient results indicate that the odds ratio is 2.44, [exp(1.3147 – 0.4230)] for workers who had a moderate depressive episode and had mental health treatment, compared with those who had a moderate depressive episode and did not have mental health treatment. The odds ratio is 6.92 [exp(2.3578 – 0.4230)] for workers who had a severe depressive episode and had mental health treatment, compared with those who had a severe depressive episode and did not have mental health treatment.

Results in Table 3 indicate that about 57% of workers with a moderate depressive episode did not use treatment and 40% of workers with a severe depressive episode did not use treatment. Conversely, about 5% of those who did not have a depressive episode used treatment in the past year.

Discussion

In these data we observed 3 significant trends. First, severe depression has a significant negative association with productivity. This corroborates reports in the literature.[16]

Second, a significant proportion of workers who had moderate and severe depressive episodes did not have mental health treatment. This trend corroborates reports in the literature. Lim et al[9] found that about 15% of workers with mental disorders accessed treatment. Hilton et al[10] found that 54% of workers who experienced high psychological distress reported having used treatment. The results also reflect service use patterns for the general population with

Table 3 Distribution of no treatment by severity groups			
Did not use mental health treatment	%	*n*	Statistical tests[a] χ^2, *df*, *P*
No depressive episode	95.32	2360	430.90, 1, <0.001
Mild depressive episode	82.63	43	6.006, 1, <0.01
Moderate depressive episode	56.80	71	216.35, 1, <0.001
Severe depressive episode	40.00	28	259.35, 1, <0.001
[a] For differences between proportion of people who used treatment			

mental disorders. For instance, Wang et al[25] reported that 57% of people with a major depressive disorder in the past 12 months accessed treatment.

Third, compared with people with moderate or severe depressive episodes who did not receive treatment, those who did were significantly more likely to be in the highly productive group. However, this finding deviates from reports by Hilton et al[10] and Lim et al.[9] The former observed that, compared with workers who experienced high psychological distress and did not receive treatment, those who did receive treatment reported significantly less productivity.[10] The difference between our findings may be related to whether high psychological distress is equivalent to a depressive episode. To the extent that high psychological distress reflects individual responses to factors other than depression symptoms, differences would be expected.

Lim et al[9] also reported decreased productivity associated with treatment. They used a count of days during which people reported experiencing work cutback or work loss. Part of the difference may be attributed to whether people need to be either absent from work or miss some work to access treatment for their mental disorders. If workers count the number of days that they work less because of treatment, the results show a positive association between work loss and treatment. The difference between the Lim et al[9] results and ours may be related to the productivity measure that was used in our study, which asks about performance at work rather than days missed. It may be that the worker missed part of the work day but their performance was high during the part of the day that they were present. It would be important for future work to use the full version of the WHO's HPQ[12] to allow for the examination of the combination of both measures (performance and lost time).

Limitations

These results should be interpreted in light of the data limitations. First, all the measures depended on self-report. Thus they may be subject to reporting bias. For example, the definition of what is high and low job performance may vary by respondent. The variation may also manifest itself if there are differences in interpretations of what is high performance among people who are in seemingly similar contexts (for example, the same sex, occupation, or age).

Second, we used cross-sectional data and cannot make statements about causality. It may be that respondents who are highly productive and used treatment may have done so because they were less severe than those who did not use treatment. That is, they were able to use treatment because they were well enough to do so. To the extent that this is the case, we may have overestimated the association between treatment and productivity among workers who have had depressive episodes. It would be useful for future studies to pursue this line of inquiry, examining the chronological sequence of events.

Third, the survey sample had an overrepresentation of females. This could have influenced the results we observed. For example, if female workers are more likely to seek treatment than male workers, we may have overestimated the proportion of workers with depressive episodes who use treatment.

The literature also suggests that there is a relation between comorbid chronic physical conditions and decreased productivity.[5] To the extent that the presence of comorbid chronic physical conditions are associated with decreased productivity, we may have underestimated the association of treatment and productivity.

Finally, while we consider past-year experience with depressive episode and mental health treatment, the outcome that we are measuring is for the past month. As a result, we may have underestimated the association of treatment and productivity for workers with a depressive episode. For example, if people received treatment for a depressive episode that occurred at the beginning of the year and were answering the questions about productivity at the end of the year, we may not be observing the full association between treatment and productivity. Further, the data do not allow us to identify the type of treatment used—whether it was pharmacological, counselling, or a combination. They also do not allow us to determine the quality of the treatment. It would be important for future studies to examine the contribution of the types of treatment and quality to productivity. In addition, because the worker could have experienced a depressive episode at any time during the past 12 months and our outcome is for the past month, we may be underestimating the relation between depressive episode and productivity. However, there is evidence that work impairment associated with affective disorders can persist for 5 to 18 months after an episode.[26,27]

Conclusions

Our results corroborate those in the literature that indicate mental disorders are significantly associated with work productivity. In addition, our findings indicate that treatment for these disorders has a significantly positive association between treatment and work productivity. Our results also highlight the relatively low proportion of workers with a depressive disorder who receive treatment.

Acknowledgements

The authors thank the thoughtful comments suggested by the anonymous reviewers of *The Canadian Journal of Psychiatry*. Data collection for the dataset used in this paper was financially supported by a contract between the Addiction and Mental Health section of Alberta Health Services and the Institute of Health Economics, Edmonton, Alberta. Supplementary analyses for this paper were supported by an unrestricted grant from Lundbeck Canada with the Institute of Health Economics. Interviewing and data assembly were completed by a private research firm, Malatest and Associates, that was hired by the investigators. Dr Dewa also gratefully acknowledges the support provided by her Canadian Institute of Health Research–Public Health Agency of Canada Applied Public Health Chair. The Centre for Addiction and Mental Health receives funding from the Ontario Ministry of Health and Long-Term Care to support research infrastructure. Any remaining errors are the sole responsibility of the authors and do not reflect the views of any of the funders. There was no financial conflict of interest for any of the authors of this paper.

References

1. Greenberg PE, Kessler R, Birnbaum HG, et al. The economic burden of depression in the United States: how did it change between 1990 and 2000? J Clin Psychiatry. 2003;64(12):1465–1475.
2. Stephens T, Joubert N. The economic burden of mental health problems in Canada. Chronic Dis Can. 2001;22(1):18–23.
3. Lim KL, Jacobs P, Ohinmaa A, et al. A new population–based measure of the economic burden of mental illness in Canada. Chronic Dis Can. 2008;28(3):92–98.
4. Dewa CS, Lin E. Chronic physical illness, psychiatric disorder and disability in the workplace. Soc Sci Med. 2000;51(1):41–50.
5. Dewa CS, Lin E, Kooehoorn M, et al. Association of chronic work stress, psychiatric disorders, and chronic physical conditions with disability among workers. Psychiatr Serv. 2007;58(5):652–658.
6. Trude S, Christianson JB, Lesser CS, et al. Employer-sponsored health insurance: pressing problems, incremental changes. Health Aff (Millwood). 2002;21(1):66–75.
7. Rosenheck RA, Druss B, Stolar M, et al. Effect of declining mental health service use on employees of a large corporation. Health Aff (Millwood). 1999;18(5):193–203.
8. Bernard DM, Selden TM. Workers who decline employment-related health insurance. Med Care. 2006;44(5 Suppl):I12–I18.
9. Lim D, Sanderson K, Andrews G. Lost productivity among full-time workers with mental disorders. J Ment Health Policy Econ. 2000;3(3):139–146.
10. Hilton MF, Scuffham PA, Sheridan J, et al. The association between mental disorders and productivity in treated and untreated employees. J Occup Environ Med. 2009;51(9):996–1003.
11. Thompson AH, Jacobs P, Dewa CS. The Alberta Survey of Addictive Behaviours and Mental Health in the Workforce: 2009. Edmonton (AB): Institute of Health Economics; 2011.
12. Kessler RC, Barber C, Beck A, et al. The World Health Organization Health and Work Performance Questionnaire (HPQ). J Occup Environ Med. 2003;45(2):156–174.
13. Sanderson K, Andrews G. Common mental disorders in the workforce: recent findings from descriptive and social epidemiology. Can J Psychiatry. 2006;51(2):63–75.
14. Lerner D, Adler DA, Chang H, et al. The clinical and occupational correlates of work productivity loss among employed patients with depression. J Occup Environ Med. 2004;46(6 Suppl):S46–S55.
15. Wang J, Adair CE, Patten SB. Mental health and related disability among workers: a population-based study. Am J Ind Med. 2006;49(7):514–522.
16. Lerner D, Henke RM. What does research tell us about depression, job performance, and work productivity? J Occup Environ Med. 2008;50(4):401–410.
17. Lagerveld SE, Bültmann U, Franche RL, et al. Factors associated with work participation and work functioning in depressed workers: a systematic review. J Occup Rehabil. 2010;20(3):275–292.
18. Thompson AH, Woodman K, Dewa CS. Surveying sensitive topics: a case study in response rates. Edmonton (AB): Institute of Health Economics; 2011.
19. Sheehan DV, Lecrubier Y, Sheehan KH, et al. The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. J Clin Psychiatry. 1998;59(Suppl 20):22–33; quiz 34–57.
20. Broadhead WE, Blazer DG, George LK, et al. Depression, disability days, and days lost from work in a prospective epidemiologic survey. JAMA. 1990;264(19):2524–2528.
21. Kessler RC, Zhao S, Blazer DG, et al. Prevalence, correlates, and course of minor depression and major depression in the National Comorbidity Survey. J Affect Disord. 1997;45(1–2):19–30.
22. Thompson AH, Dewa CS, Bland RC, et al. The influence of bereavement and depression severity on comorbidities, symptoms, and treatment involvement: implications for treatment policy and for the proposed DSM-5 criteria. Edmonton (AB): Institute of Health Economics; 2011.
23. Babor TF, Higgins-Biddle JC, Saunders JB, et al. The Alcohol Use Disorders Identification Test: guidelines for use in primary care. 2nd ed. Geneva (CH): World Health Organization; 2001.
24. Skinner H. The drug abuse screening test. Addict Behav. 1982;7:363–371.
25. Wang PS, Lane M, Olfson M, et al. Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2005;62(6):629–640.
26. Adler DA, McLaughlin TJ, Rogers WH, et al. Job performance deficits due to depression. Am J Psychiatry. 2006;163(9):1569–1576.
27. Judd LL, Schettler PJ, Solomon DA, et al. Psychosocial disability and work role function compared across the long-term course of bipolar I, bipolar II and unipolar major depressive disorders. J Affect Disord. 2008;108(1–2):49–58.

Manuscript received March 2011, revised, and accepted July 2011.

[1] Head, Centre for Research on Employment and Workplace Health, Centre for Addiction and Mental Health, Toronto, Ontario; Professor, University of Toronto, Department of Psychiatry, Toronto, Ontario.

[2] Clinical Psychologist, Institute of Health Economics, Edmonton, Alberta; Associate Adjunct Professor, University of Alberta, Faculty of Medicine, Edmonton, Alberta.

[3] Director of Research Collaborations, Institute of Health Economics, Edmonton, Alberta; Professor of Health Economics, University of Alberta, Faculty of Medicine, Edmonton, Alberta.

Address for correspondence: Dr C S Dewa, Centre for Research on Employment and Workplace Health, Centre for Addiction and Mental Health, 455 Spadina, Suite 300, Toronto, ON M5S 2G8; carolyn_dewa@camh.net

Résumé : L'association du traitement des épisodes dépressifs et de la productivité au travail

Objectif : Le tiers environ des coûts annuels de 51 milliards de dollars que représentent les maladies mentales est lié aux pertes de productivité. Cependant, peu d'études ont examiné l'association entre traitement et productivité. Notre recherche vise à examiner l'association de la dépression et de son traitement avec la productivité au travail.

Méthodes : Nos analyses ont utilisé les données de 2737 adultes âgés entre 18 et 65 ans qui ont participé à une enquête communautaire à grande échelle menée auprès de personnes employées et récemment employées, en Alberta. À l'aide du questionnaire sur la santé et le rendement au travail de l'Organisation mondiale de la santé, une variable de productivité a été créée pour saisir la productivité élevée (au-dessus du 75^{e} percentile). Nous avons utilisé des méthodes de régression pour examiner l'association des troubles mentaux et de leur traitement avec la productivité, en contrôlant les facteurs démographiques et les caractéristiques de l'emploi.

Résultats : Dans l'échantillon, quelque 8,5 % ont eu un épisode dépressif l'année précédente. Les résultats de la régression ont indiqué que les personnes qui avaient eu un épisode dépressif grave étaient significativement moins susceptibles d'être très productives. Comparativement aux personnes ayant eu un épisode dépressif modéré ou grave qui n'avaient pas eu de traitement, celles qui ont eu un traitement étaient significativement plus susceptibles d'être très productives. Toutefois, environ la moitié des travailleurs ayant eu un épisode dépressif modéré ou grave n'ont pas reçu de traitement.

Conclusions : Nos résultats corroborent ceux de la littérature qui indiquent que les troubles mentaux sont significativement associés à la productivité réduite au travail. En outre, ces résultats indiquent que le traitement de ces troubles est significativement associé à la productivité. Nos résultats font également ressortir la faible proportion de travailleurs souffrant d'un trouble mental qui reçoivent un traitement.