

DEPRESSION AND CHRONIC DISEASE: DOUBLE TROUBLE

MAJOR DEPRESSION is a debilitating and at times lethal condition. Estimates of lifetime risk of suicide among those with major depression reach 15%, and the literature suggests that all-cause mortality rates are 2-3 fold higher for those with major depression than for people who are not depressed.

While we don't know the full public health impact of depression in Oregon, we're taking steps to find out more. The DHS Office of Mental Health and Addiction Services is collecting information on prevalence of symptoms consistent with major depression in the general population, and results should be available late next year.

Dealing with depression is bad enough, but several studies suggest it is even more common as a co-morbidity among people with chronic disease. In this issue of the *CD Summary*, we look at the prevalence of depression among Oregonians with chronic disease and discuss its impact on their ability to manage their underlying illness.

In a survey conducted between July 2004 and February 2005, we called back 1638 respondents to the Oregon Behavioral Risk Factor Surveillance Survey (BRFSS) who reported that they'd been diagnosed by a clinician with arthritis, diabetes, heart disease, or stroke, and inquired about depression and how they self-managed their chronic disease. Of the respondents, 56% were women, 20% were aged 18-44 years, 42% were aged 45-64, and 38% were aged 65 or older.

We asked if respondents had been told by a health care provider in the last 12 months that they had depression (22% said they had

been), and whether they were currently taking medication for depression (20% said they were; see Table 1). We also asked respondents the Patient Health Questionnaire (PHQ-9), a screening tool for symptoms of active major depression with sensitivity and specificity above 85% for the condition (available at: http://www.pfizer.com/pfizer/hcp/mn_pubs_professional.jsp).

The symptomatic criteria for major depression include depressed mood, anhedonia (marked loss of pleasure or interest in things), decrease or increase in appetite, insomnia or excessive sleepiness, marked agitation or retardation of thought or actions, loss of energy or fatigue, feelings of worthlessness or inappropriate guilt, decreased ability to concentrate, and recurrent thoughts of death or suicide. With the exception of thoughts of death/suicide, symptoms must be present most of the day, nearly every day during a two-week period to meet the criteria. (For the full rundown on diagnostic criteria, see the DSM-IV)¹.

Surprisingly, 10% (that's 10% of a random sample of Oregonians with common chronic diseases) had active symptoms consistent with major depression at the time of the survey. This compares with an estimated 2-5% point-prevalence of active symptoms consistent with major depression in the general population.^{2,3} While in a survey like this we can't determine if all of these people actually *had* major depression (diagnosis would require ruling out direct physiologic causes such as substance abuse or hypothyroidism, or that symptoms are better explained by bereavement, as from the recent loss of a

loved one), the intensity and pervasiveness of their symptoms have clear implications for their ability to function, including their pursuit of chronic disease self-management.

Based on responses to the above questions, we further determined how many respondents had clinically relevant depression in the past year (i.e., clinical confirmation in the past 12 months, current medication for depression, or active symptoms). Using this broader definition, the percentage of Oregonians with chronic disease who are depressed swells to 30. (See table 1.)

WHAT DOES THIS MEAN FOR SELF-MANAGEMENT?

A few caveats here. In assessing adherence to recommended disease self-management, we're limited by our reliance on people's self-report of their activities, which, evidence suggests, can result in an overly rosy picture⁴. Nonetheless, the survey revealed that people who met the broader definition for depression were less confident in their ability to self-manage their underlying chronic disease, and were also less likely to engage in several key self-management behaviors. People with depression were less confident in their ability to get regular physical activity, to maintain a healthy body weight or lose excess weight, to follow a healthy eating plan, to take medications as they were prescribed, and to do all the things necessary to manage their chronic condition (p values all $\leq .05$). This lack of confidence was strongly reflected in reported difficulties with actual self-management activities. Oregonians with depression as a co-morbidity were less likely to get

*No, we don't own stock in the company.



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Table 1. Depression-related Responses to a Questionnaire Among Oregonians with Chronic Disease, 2004-2005

	Clinically confirmed depression in past 12 months	Currently taking medication prescribed by a doctor for depression	Active symptoms consistent with major depression	Overall prevalence of depression in past 12 months
Chronic Disease	22%	20%	10%	30%
Arthritis	21%	21%	9%	30%
CVD	25%	22%	12%	33%
Diabetes	23%	19%	10%	30%

recommended levels of physical activity, more likely to be smokers, and more likely to be obese (see Table 2 for percentages). We also compared people with active symptoms of depression (major or minor) to those without any current symptoms of depression (including those with no history of depression and those with symptoms controlled by medication). Active depression was not associated with obesity, nor with being a smoker, but was associated with physical activity below recommended levels. Further, people with active depression were less likely to be taking their medications as prescribed.

IMPLICATIONS FOR CLINICIANS

These findings suggest that depression is a common co-morbidity

among Oregonians with chronic disease. Further, co-morbid depression increases the risk of complications and death from chronic diseases such as diabetes and cardiovascular disease^{5,6}. In part, this heightened morbidity could be due to just the sort of difficulty with self-management evident in this survey.

The U.S. Preventive Services Task Force recommends screening adults for depression in clinical practices that have systems in place to assure accurate diagnosis, effective treatment, and follow-up (<http://www.ahcpr.gov/clinic/uspstf/uspsdepr.htm>). In light of the high frequency of depression among Oregonians with chronic disease noted in this study, screening for depression using the PHQ-9 or other similar tools among those with arthritis,

diabetes, or cardiovascular disease could help identify patients with this dangerous co-morbidity. This could be an important step in getting them the help they need to mitigate both the sequelae of depression itself and the deleterious effects it can have on management of chronic disease.

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Table 2. Proportion of Depressed* and Non-depressed Oregonians with Chronic Disease Engaging in Selected Self-Management and Risk Behaviors

Self-management behavior	Depressed	Not Depressed
Met CDC Physical Activity Recommendations	25%	38%
Currently Smoker	24%	15%
Obese (body mass index >30)	50%	34%

*Clinical confirmation of depression in past 12 months, current use of medication for depression, or active symptoms of major depression.