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Major Depression in New Mexico Adults

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Depression is one of the most prevalent and treatable mental disorders encountered by clinicians in primary care practice. Approximately 6.7% of U.S. adults 18 years and older had a major depressive disorder in the past 12 months.[1] Yet, only 56.8% of these individuals received any mental health treatment during that time. The majority (51.7%) of those that received treatment sought some care in the general medical setting.[2]

Major depression is usually associated with co-morbid mental disorders, such as anxiety and substance use disorders, marked symptom severity, and impairment of a person's ability to function in work, home, relationship, and social roles.[2] Depression is also a risk factor for suicide and attempted suicide. In addition, depressive disorders have been associated with an increased prevalence of chronic medical conditions, such as heart disease, stroke, asthma, arthritis, cancer, diabetes, and obesity.[3]

This report highlights the epidemiology of current depression among New Mexican adults using results from the 2006 Behavioral Risk Factor Surveillance System (BRFSS). Population-based prevalence estimates of current depression by socio-demographic characteristics, and health risk behaviors and chronic medical conditions by depression status, were stratified by sex to describe gender differences in depression rates.

Methods

The NM BRFSS is a random-digit-dialed telephone survey of adults 18 years and older living in households with a landline telephone. It is conducted annually by the NM Department of Health Survey Unit in collaboration with the CDC.

In 2006, the Anxiety and Depression Module was added to the core BRFSS questionnaire. The first eight questions were from the Patient Health Questionnaire (PHQ-8), an instrument that can establish a provisional depressive disorder diagnosis using Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria. The PHQ-8 was derived from the primary care evaluation of mental disorders developed by Drs. Kurt Kroenke and Robert Spitzer. The number of days during which symptoms were reported were converted to points; the number of points were then summed across the 8 questions to determine the severity of depressive symptoms. A cut-off score of 10 points or more, which has 88% sensitivity and specificity for major depression, was used to define current depression.[4] Survey respondents with a "don't know," "refused," or missing response to one or more of the 8 questions were excluded from the analysis (n=836 or 12.7% of sample).

Data were analyzed in Stata v9.2 using complex survey commands. Prevalence estimates and 95% confidence intervals were weighted to the 2006 U.S. Census population estimates for NM by sex, age, and public health region.

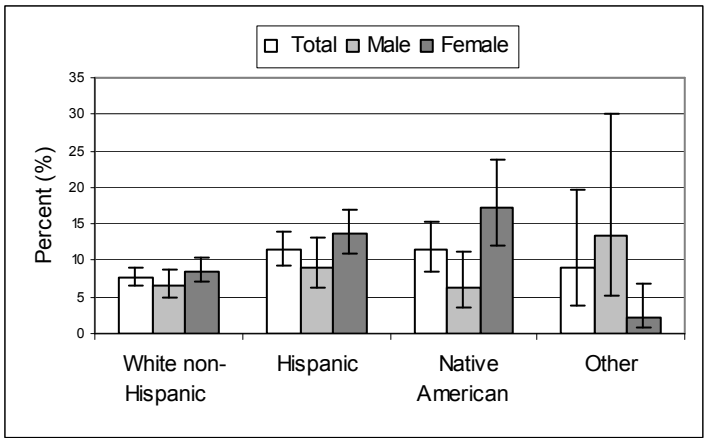
Results

Approximately 118,502 adults, or 9.3% of the total adult population, met DSM-IV criteria for major depression. Depression was more common among females (10.9%) than males (7.7%). The prevalence of depression was highest among young adults 18-24 years (12.5%) and middle-aged adults 45-54 years (11.2%) compared to other age groups. Females aged 18-64 years had higher rates of depression than males, the same rate as males 65-74 years, and a lower rate (3.9%) compared to males (7.2%) 75 years and older. None of these age differences were statistically significant.

Overall, Hispanic adults had a higher rate of depression (11.5%) than White non-Hispanics (7.6%) (Figure

1). Depression was more common among Native American (NA) females (17.1%) compared to females of White non-Hispanic (8.5%) and other (2.2%) racial/ethnic backgrounds. NA females had a higher rate of depression than NA males (6.3%). This NA gender difference in depression was evident in the northwest region of the state, where females (12.9%) had a higher rate of depression compared to males (4.7%).

Figure 1. Depression by Race/Ethnicity and Sex New Mexico, 2006

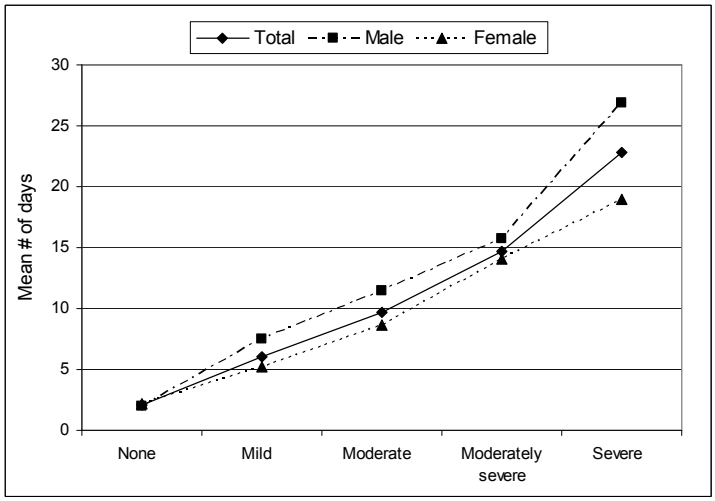


Overall and sex-specific rates of depression increased as household income decreased. Twenty-five percent of adults with annual household incomes <$10,000 met criteria for depression compared to only 5% of adults with household incomes of $50,000 or more. Depression rates were higher among adults who were unable to work (41.5%) or unemployed (17.7%) than among employed (6.8%) or retired (5.3%) adults. Higher rates of depression were associated with having less than a high school education (15.3%) compared to having some higher education (9.2%) or a college/technical school degree (4.6%).

The prevalence of depression was significantly lower among married (7.1%) than previously married (12.6%) and never married (12.4%) adults. Adults who reported a non-heterosexual sexual preference (16.3%) had higher rates of depression compared to heterosexual adults (9.0%), although this difference was not statistically significant.

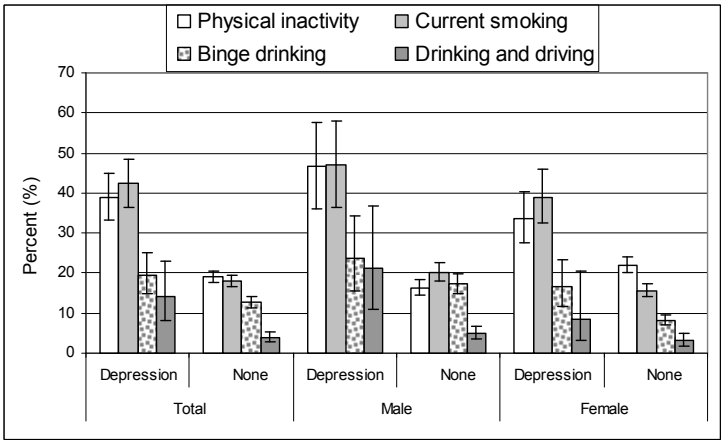
Among adults with depression who reported that their physical or mental health was not good for one or more days in the past 30 days, the average number of days that poor health limited usual daily activities increased as depression severity increased (Figure 2). Among severely depressed adults, males reported almost 27 days of activity limitations, a significantly higher number than females (19 days).

Figure 2. Number of Days of Limited Activity by Depression Severity and Sex, New Mexico, 2006



Rates of reported physical inactivity and current smoking were 1.5 to 3 times higher among depressed adults than non-depressed adults (Figure 3). Depressed females reported binge drinking (defined as 4 or more alcoholic drinks on an occasion) in the past 30 days (16.6%) more frequently than non-depressed females (8.2%). Drinking and driving was reported more frequently by depressed males (21.2%) than non-depressed males (4.8%).

Figure 3. Unhealthy Behaviors by Depression Status and Sex, New Mexico, 2006



Adults with depression were more likely to report a lifetime provider diagnosis of asthma, diabetes, and cardiovascular disease and to be obese, defined as a body mass index ≥30 (Figure 4). Both depressed fe-

males and males were more likely to have been diagnosed with diabetes and to have had a myocardial infarction (MI). Depressed females were more likely to report asthma (25.2%) and to be obese (37.5%) than non-depressed females. Angina was more common among depressed (13.0%) than non-depressed males (3.8%). Depressed males (19.6%) were 3 times more likely to have had an MI than depressed females (6.6%). Finally, adults with depression were more likely to have had a stroke (4.9%) compared to non-depressed adults (2.1%).

Discussion

The prevalence of depression in NM (9.3%) was similar to the national estimate (8.7%) obtained from BRFSS interviews of more than 200,000 adults from 38 states, the District of Columbia, Puerto Rico, and the US Virgin Islands.[5] Similar socio-demographic correlates of major depression, as well as higher rates of physical inactivity, current smoking, risky drinking behaviors, and obesity among depressed adults, were also found in the U.S. sample.

In New Mexico, 42.3% of depressed adults were current smokers compared to 17.9% of non-depressed adults. Previous research shows an association between major depression and the initiation of smoking, as well as an increased risk of first-time depression among daily smokers.[6] Results from the 2006 National Survey on Drug Use and Health (NSDUH) indicated that adults with nicotine dependence were over twice as likely to have met criteria for a past 12-months major depressive episode compared to non-dependent adults.[7] Efforts in the primary care setting to screen for and treat both nicotine dependence and depression could lead to lower rates of these disorders.

In the national BRFSS sample, females with depression were more likely to report binge drinking, and both depressed males and females were more likely to report heavy drinking.[5] In NM, females with depression were also more likely to report binge drinking. Heavy drinking was more common among depressed (7.5%) than non-depressed adults (4.2%) in NM, but this difference was not statistically significant. Results from other national surveys have shown higher rates of substance use disorders among adults with mood disorders. Among respondents who met DSM-IV criteria for major depression in the past year, 19.2% also met criteria for any 12-month substance use disorder, and 16.4% met criteria for any alcohol use disorder.[8] Alcohol dependence (11.0%) was more common than alcohol abuse (5.4%).

The U.S. Preventive Services Task Force recommends screening adults for depression, followed by diagnosis, treatment, and monitoring.[9] The PHQ depression module, a self-administered checklist, is a useful and valid tool for identifying patients with depressive disorders in the primary care setting. Since substance use disorders, predominantly alcohol use disorders, commonly co-occur with depression, routine screening for both disorders could reduce the burden of mental disorders and also lead to improved physical health outcomes.

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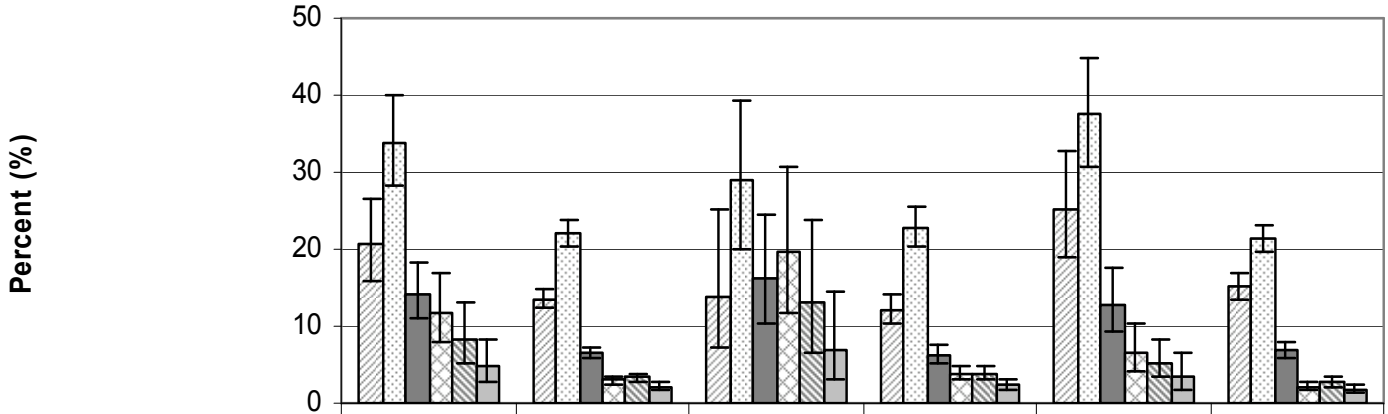
Figure 4. Chronic Health Conditions by Depression Status and Sex, New Mexico, 2006



	Total		Male		Female	
	Depression	None	Depression	None	Depression	None
Asthma	20.7	13.6	13.9	12.1	25.2	15.2
Obesity	33.9	22.0	28.8	22.8	37.5	21.3
Diabetes	14.2	6.5	16.1	6.2	12.9	6.8
Myocardial infarction	11.8	3.0	19.6	3.8	6.6	2.2
Angina/CHD	8.4	3.3	13.0	3.8	5.3	2.8
Stroke	4.9	2.1	6.9	2.3	3.5	1.8