

Depression and Associated Health Risks and Conditions Among Rhode Island Adults in 2006

Jana Hesser, PhD, and Yongwen Jiang, PhD

Mood or depressive disorders affect about 20.9 million US adults (ages 18 and older), or 9.5% of the US population.¹ Within this grouping, major depressive disorder affects approximately 14.8 million American adults, or about 6.7% of adults.²

Depression can impact health-related quality of life, decrease adherence to health interventions, is linked to health risks, such as smoking, alcohol use, physical inactivity, and obesity, and can exacerbate or increase the risk of chronic illnesses.³ This report presents data on depression and associated health risks and conditions among Rhode Island adults using self-reported responses from Rhode Island's 2006 Behavioral Risk Factor Surveillance System (BRFSS).

METHODS

The BRFSS is a telephone survey administered in all 50 states and four US territories with funding and specifications from the Centers for Disease Control and Prevention (CDC).⁴ The BRFSS monitors the adult population for access to health care, selected health conditions and behaviors. From January through December 2006, the Rhode Island BRFSS conducted telephone interviews with 4,515 adults ages 18 and older.

In 2006 the BRFSS module on Depression and Anxiety was added to Rhode Island's questionnaire. The module included eight of the DSM-IV criteria for diagnosis of major depression.⁵ These questions ask the respondent how many days each of the following occurred in the past 2 weeks: (1) had little interest or pleasure in doing things; (2) felt down, depressed or hopeless; (3) had trouble falling asleep or staying asleep or sleeping too much; (4) felt tired or had little energy; (5) had a poor appetite or ate too much; (6) felt that you were a failure or had let yourself or your family down; (7) had trouble concentrating on things; (8) moved or spoke so slowly that other people could have noticed, or were fidgety or restless, moving around much more than usual. For each question, the number of days is converted to points (0-1 day = 0 points; 2-6 days = 1 point; 7-11 days = 2 points; and 12-14 days = 3 points) and the number of points is totaled across the eight questions to determine a **depressive symptoms severity score (DSS)**. A DSS of 0-4 is defined as no depression, 5-9 as mild depression, and 10 or more as moderate or severe depression, which reflects a diagnosis of **major depression (MD)**.

RESULTS

In 2006, 9% of RI adults, approximately 80,000 people, had a DSS of 10 or more, indicating MD. The prevalence of MD varied among demographic subgroups. (Figure 1) More women (11%) than men (6%) had MD, and the prevalence of MD decreased

with age. Fewer (8%) White non-Hispanics than either Hispanics (14%) or other non-Hispanics (15%) had MD, a difference which may be due in part to the higher proportion of older adults in the White non-Hispanic population. (Figure 1) MD rates were higher among persons with less than a college degree (12%), in households with incomes less than \$25,000 (22%), and among persons who are divorced/separated (16%), unemployed (26%), unable to work (50%), or disabled (25%).

Comparing health risks and health conditions for those with no depression, mild depression and major (moderate/severe) depression, risk increased consistently as depression severity increased for every variable examined. More than half (52%) of those with MD reported never, rarely, or only sometimes getting needed social/emotional support; more than a third (36%) were dissatisfied with life. (Figure 2) One quarter of those with MD lacked health care coverage, compared with 8% of those without depression. Persons with MD were at greater risk for a sedentary lifestyle, smoking, not wearing a seatbelt, and not receiving dental care.

People with MD more frequently had compromised health than persons with mild depression or without depression. (Figure 3) Thirteen percent of persons with MD had diabetes, 1 in 4 had asthma, 1 in 3 was obese. More than half (54%) of persons with MD reported having a physical disability, 38% reported pain-related activity limitations, and 48% had trouble learning, remembering, or concentrating.

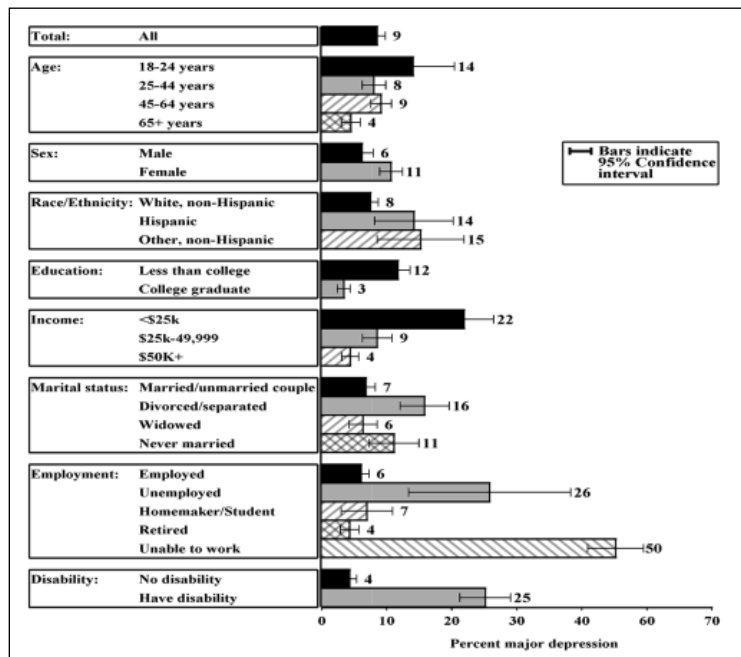


Figure 1. Prevalence of major depression, by selected characteristics, ages 18 and older, Rhode Island, 2006.

DISCUSSION

The analytic associations between major depression and the various demographic characteristics, health-risk behaviors, and health conditions do not necessarily identify causal relationships. For example, people with depression may be more likely to develop disabilities, but disabled persons may be more prone to depression. Similarly, people with depression may be more likely to smoke, but it is also possible that smokers are more likely to develop depression.

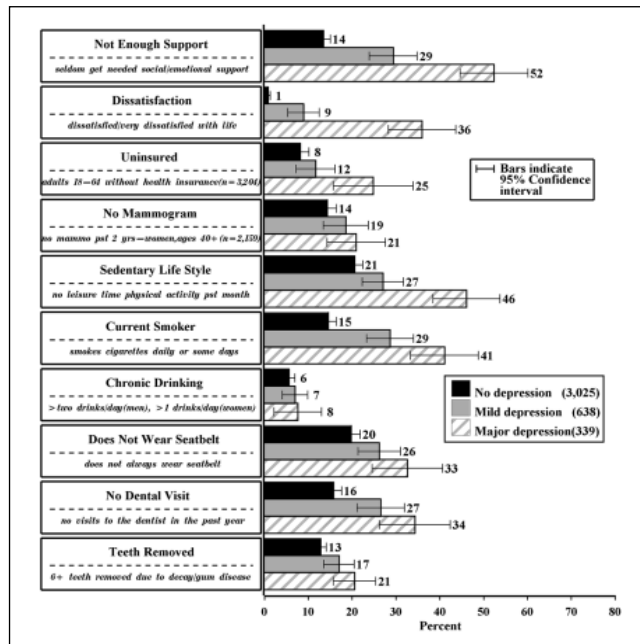


Figure 2. Health Risks by Depression Status, Ages 18 and Older, Rhode Island, 2006.

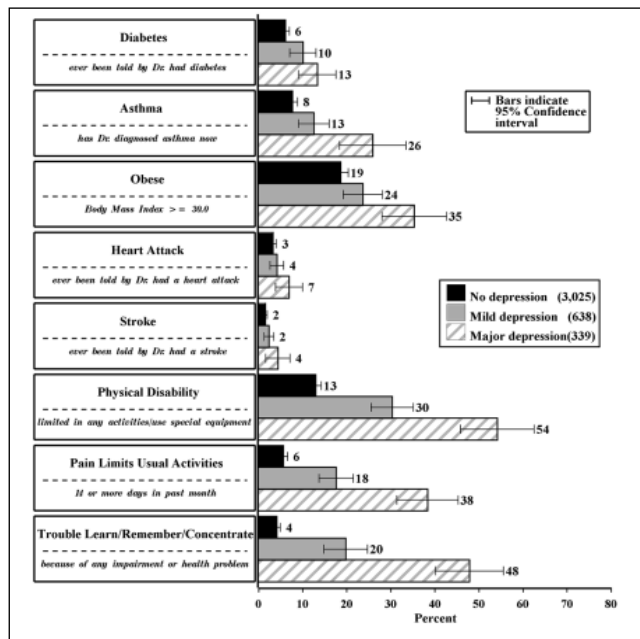


Figure 3. Health Conditions by Depression Status, Ages 18 and Older, Rhode Island, 2006.

However, the interrelationship between depressive disorders, chronic disease and health risk behaviors has implications for public health, health care delivery and medical practice and treatment.³ Our results identify populations “at risk” for major depression and indicate a need for increased mental health care, preventive health care and community support services for them. Furthermore, since those experiencing depression are at increased risk of compromised health, the assessment of health and health risk behaviors for this population is of special importance.

ACKNOWLEDGEMENTS

The Rhode Island Behavioral Risk Factor Surveillance System is supported in part by the National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention Cooperative Agreement U58/CCU122791. The depression and anxiety module added to RI’s 2006 BRFSS was supported in part by the Mental Health Data Infrastructure Grant #1 HR1 SM56659-01.

REFERENCES

1. Kessler RC, Chiu WT, et al. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Arch Gen Psychiatr* 2005 June; 62:617-27.
2. National Institute for Mental Health website: <http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america.shtml#MajorDepressive>
3. Chapman DP, Perry GS, Strine TW. The vital link between chronic disease and depressive disorders. *Preventing Chronic Disease: Public Health Research, Practice, and Policy*. 2005; 2:1-10.
4. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey. <http://www.cdc.gov/brfss>
5. National Survey on Drug Use and Health, Office of Applied Statistics, Substance Abuse and Mental Health Services Administration. June 11, 2007. <http://www.oas.samhsa.gov/2k7/states/depression.pdf> (Note: Major depression is defined using the diagnostic criteria set forth by the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*: a period of 2 weeks or longer during which there is either depressed mood or loss of interest or pleasure and at least four other symptoms that reflect a change in functioning, such as problems with sleep, eating, energy, concentration, and self-image.)

Jana Hesser, PhD is Program Manager for Health Surveys and BRFSS Project Director, Center for Health Data and Analysis, Rhode Island Department of Health, and Clinical Assistant Professor, Department of Community Health, The Warren Alpert Medical School of Brown University.

Yongwen Jiang, PhD is Public Health Epidemiologist, Center for Health Data and Analysis, Rhode Island Department of Health, and Clinical Assistant Professor, Department of Community Health, The Warren Alpert Medical School of Brown University.

Disclosure of Financial Interests

The authors have no financial interests to disclose.