



**State of Nevada
Division of Mental Health
And Developmental Services**

2008 BRFSS Analyses

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January 2008

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Introduction

Depression has been found to be the leading cause of disability worldwide (Lopez, Mathers, Ezzati, Jamison, & Murray, 2006). It is estimated that depression among U.S. workers costs the U.S. economy over \$44 billion per year due to absenteeism and lost-productivity time while at work (Stewart, Ricci, Chee, Hahn, & Morganstien, 2003). Further, major depressive disorders account for about 20 to 35 percent of all deaths by suicide (Angst, Angst, & Stassen, 1999).

The estimated cost of anxiety disorders to the U.S. economy in 1990 was \$42.3 billion comprised by \$36.6 billion in treatment costs, \$4.1 billion in indirect workplace costs, \$1.2 billion in mortality costs, and \$0.8 billion in prescription pharmaceutical costs (Greenberg, et al, 1999).

Given the impact that mood and affective disorders have, not only on the people whom they affect, but the broader population and economy, it is useful for state and national governments to ascertain the incidence and prevalence of these disorders on an annual basis. Doing so provides states with a way of estimating the amount and types of services that need to be made available. Further, ongoing measurement and trend analyses of these rates allows for ongoing evaluation of the state's provision of services.

The Behavioral Risk Factor Surveillance System (BRFSS) was established in 1984 by the Centers for Disease Control and Prevention (CDC). The BRFSS is a state-based system of health surveys conducted by telephone interviews and collects data on health risk behaviors, preventive health practices, and health care access (<http://www.cdc.gov/brfss/about.htm>). In 2006, a category was added for anxiety and depression. Nevada was one of 36 states and territories that chose to collect data for this category. What follows is a summary of the findings from that first year of data collection.

Calculating Depression

In the BRFSS, depression is assessed along two basic dimensions. The first of these is symptomatology (i.e., total number of symptoms present). The symptoms of depression assessed in the BRFSS are:

1. Days had little pleasure doing things
2. Days felt down, depressed or hopeless
3. Days had trouble with sleep
4. Days were tired or had little energy
5. Days ate too little or too much
6. Days felt like failure or let family down
7. Days had trouble concentrating
8. Days talked to move slower or faster than usual.

The second way is through the severity of symptoms or the number of days over a two week span that an individual symptom is present. A severity score is assigned for each item and those scores are summed to give a severity level ranging from “no depression” to “severe.” Additionally, from these responses a depression state is assigned which incorporates the severity score as well as the number of symptoms to yield a diagnosis of “no depression,” “minor depression,” or “major depression.” Persons with 5-8 of the abovementioned symptoms each with a duration of 7 or more days are assigned a diagnosis of major depression. Persons who have 2-4 symptoms each with a duration of 7 or more days receive a diagnosis of minor depression.

Comparison of Depression and Anxiety between Nevada and its Border states

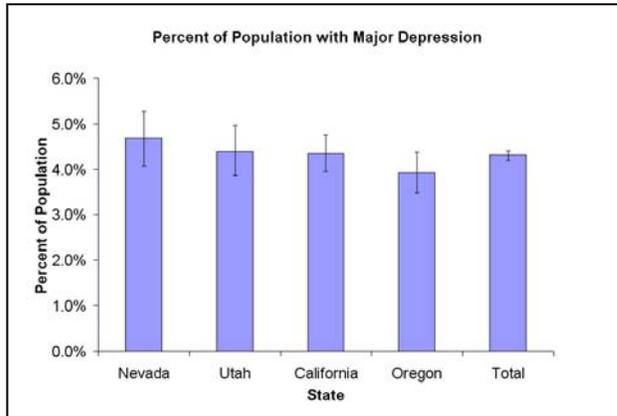


Figure 1

Figures 1, 2, & 3 compare rates of depression between Nevadans and persons in its border states, as well as the national average.

Figure 1 shows that, in Nevada, a greater percentage of persons surveyed reported symptomatology of major depression than in its border states and at the national level. However, these differences were not found to be statistically significant.

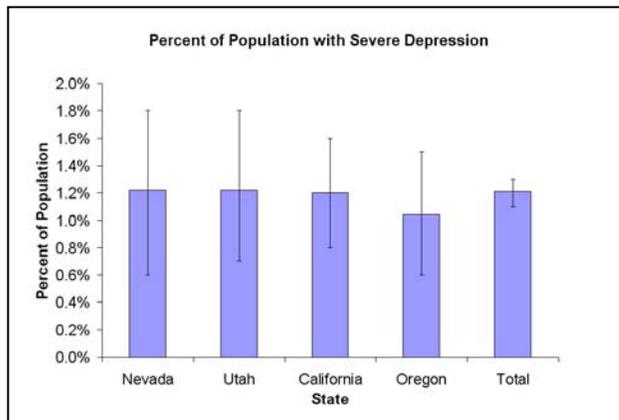


Figure 2

Figure 2 indicates that Nevada has a similar percent of the population reporting having experienced severe depression as its neighboring states, as well as rates that are close to the national average.

Figure 3 shows the percentage of the population surveyed that reported having a severity score greater to or equal to 10. As with the abovementioned data, rates reported in Nevada do not vary significantly from those reported in its neighboring states or at the national level.

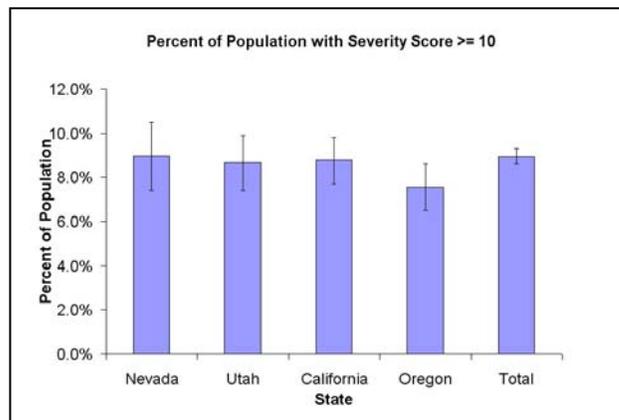


Figure 3

Nevada: Depression Rates by Sex

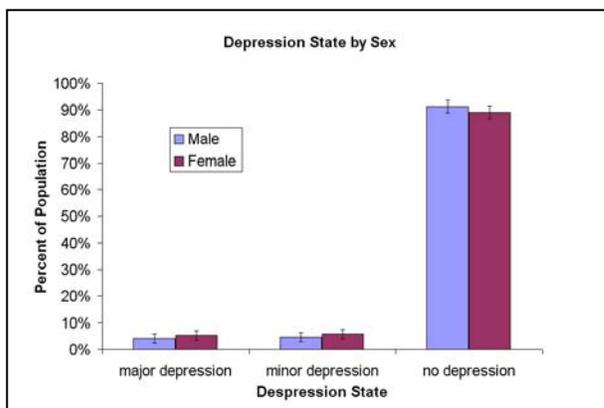


Figure 4

Figures 4, 5, & 6 show rates of depression for Nevada residents broken down by sex.

Figure 4 indicates that there is no significant difference between rates of depression between men and women surveyed in the state of Nevada with respect to depression state, although women surveyed showed a higher rate of depressive symptoms than men.

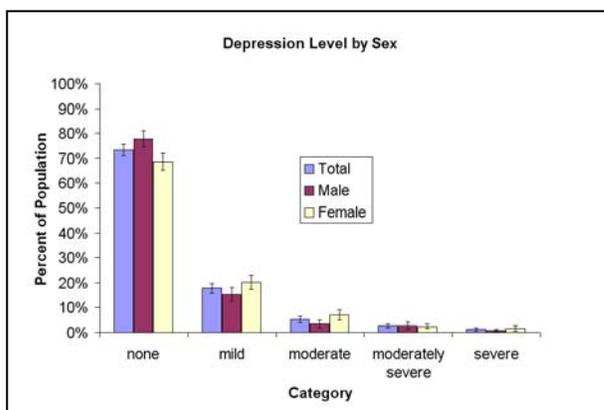


Figure 5

Figure 5, on the other hand, indicates a significant difference between men and women showing no depression when only level of depression is calculated. While there are not significant differences at the varying levels of depression, significantly fewer men than women reported depressive symptoms to the degree that they would rate at one of the four levels.

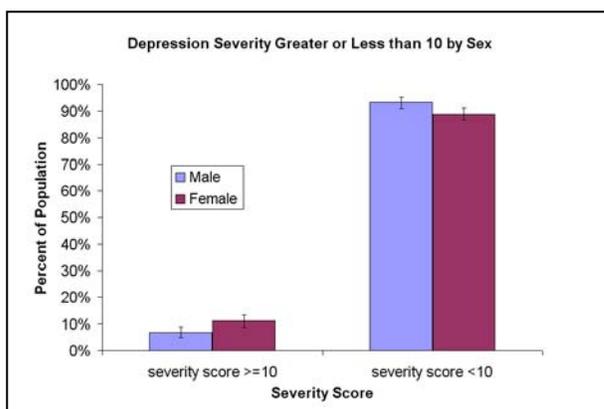


Figure 6

Figure 6 indicates that although a greater percentage of women than men received a severity score of greater than 10 (meaning “moderately severe” or above) those differences were not significant.

Nevada: Depression Rates by Education Level

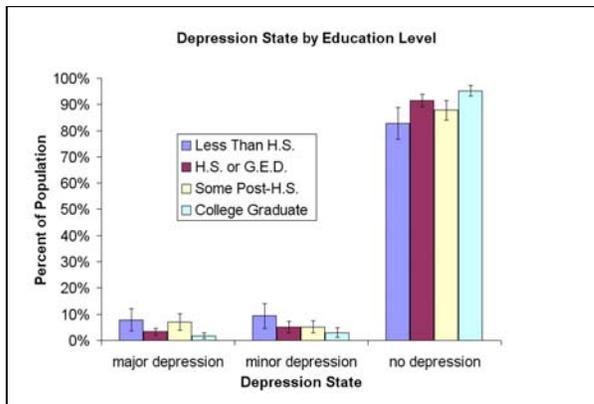


Figure 7

Figures 7, 8, & 9 show depression measures by level of education.

Figure 7 indicates that those who have not finished high school or its equivalency as well as those who have started, but not completed, college are at a higher risk for depression than those who are college graduates.

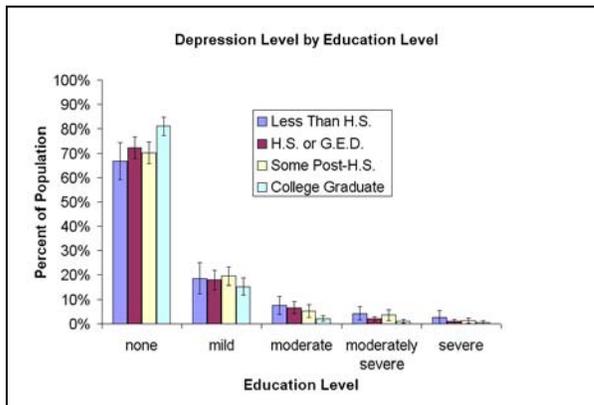


Figure 8

Figure 8 indicates that those who have completed college are significantly more likely to rate no level of depression as compared with all groups.

Figure 9 shows similar results in that persons who have graduated college are significantly less likely to rate a severity score of 10 or greater than all other groups.

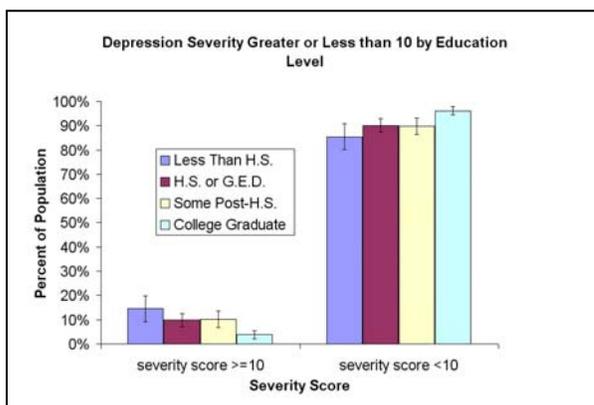


Figure 9

Nevada: Depression Rates by Income Group

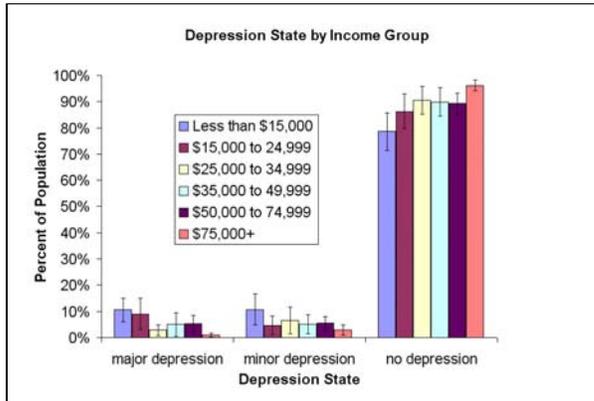


Figure 10

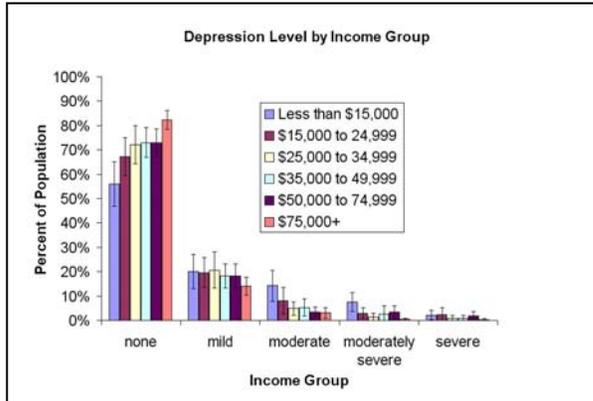


Figure 11

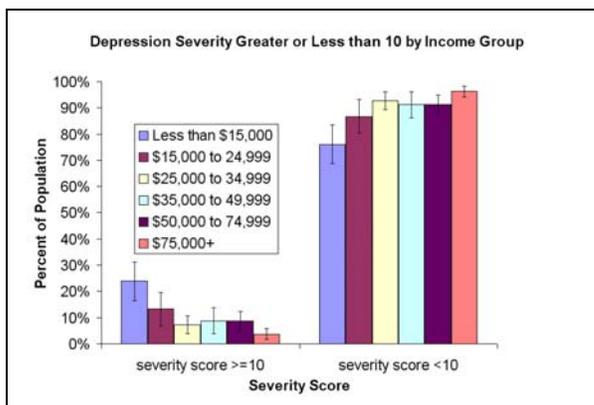


Figure 12

Figures 10, 11, & 12 show depression measures by income group.

Figure 10 shows that, generally, as income decreased, a smaller percentage of respondents reported having no depression, as measured in the BRFSS. It also shows that persons who were earning under \$25,000 per year were significantly more likely to warrant a diagnosis of depression than those earning \$75,000 or more per year.

Interestingly, those earning between \$25,000 and \$34,999 showed significantly lower rates of major depression than those in the \$15,000 and under group while the \$75,000+ group was the only other group to differ significantly from the poorest group along this dimension.

Figure 11 reinforces these findings.

Figure 12 indicates that those earning less than \$15,000 scored above 10 on the severity index significantly more than all other income groups with the exception of those earning between \$15,000 and \$24,999.

Nevada: Depression Rates by Health Status

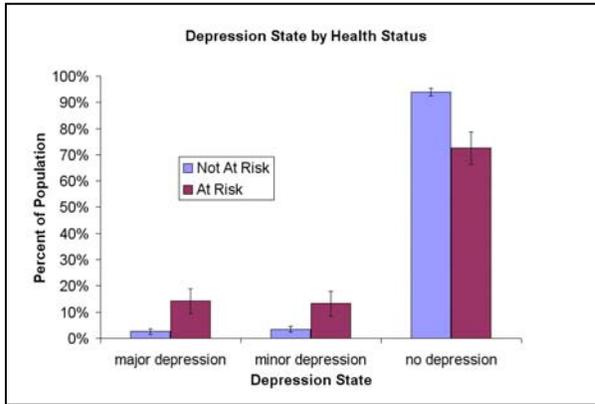


Figure 13

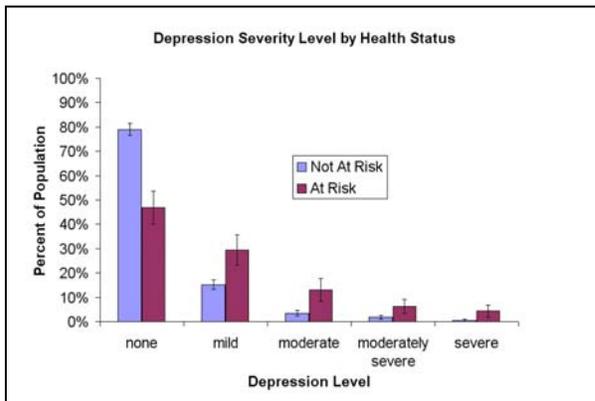


Figure 14

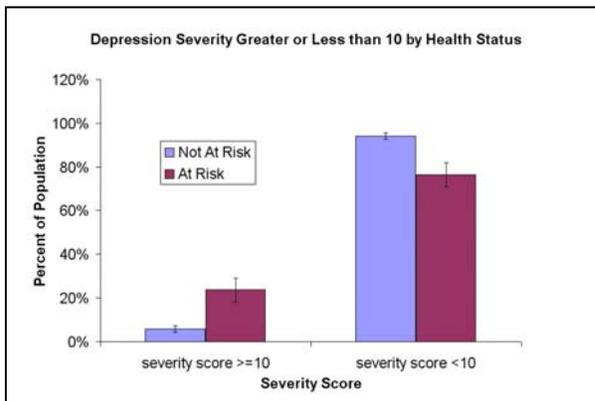


Figure 15

Figures 13, 14, & 15 show depression measures by health status. For these data, at risk is based on self-report data. People who rated their personal health as fair or poor are considered at risk for health problems while those who rated their health as good or better are considered not at risk.

These data show some of the strongest correlates between a risk factor and rates of depression in this data set. Figure 13 shows that people who are at risk show significantly higher rates of both major and minor depression than those who are not at risk.

Figure 14 shows that those at risk for poor health show significantly higher levels of depression at all levels than those who are not at risk.

Figure 15 shows that persons at risk for poor health are significantly more likely to score 10 or higher on the severity index than those who are not at risk.

Nevada: Depression Rates by Health Coverage

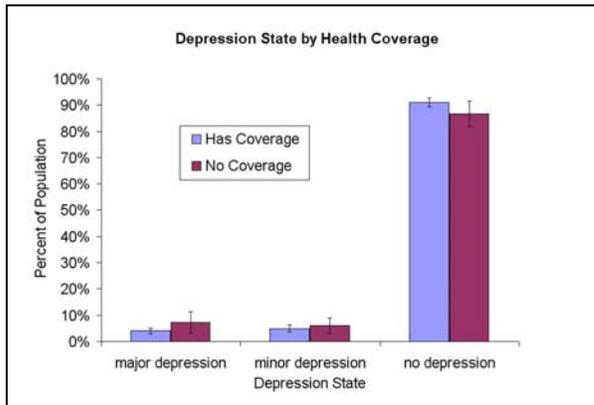


Figure 16

Figures 16, 17, & 18 show data concerning health coverage and depression.

Figure 16 does not indicate any significant differences between those who have health care coverage and those who do not in terms of depression states.

Figure 17, however, indicates that those who have coverage are significantly more likely to show few to no depressive symptoms when compared with their uncovered counterparts.

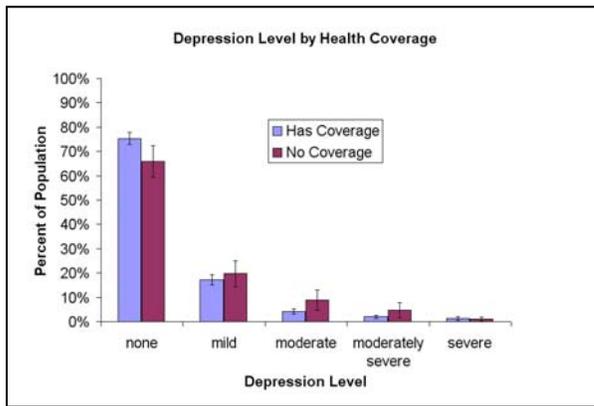


Figure 17

Figure 18 indicates that people without health coverage are significantly more likely to score above 10 with respect to severity level than those who have coverage.

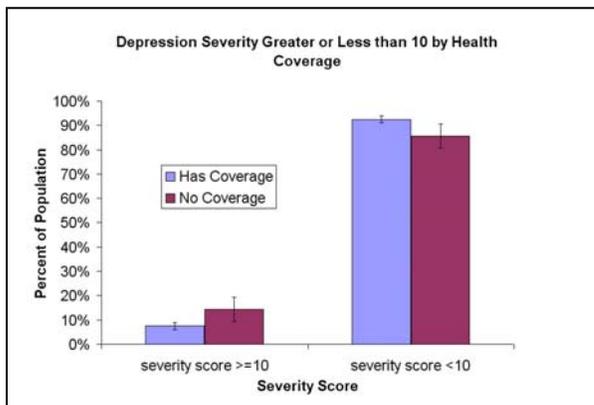


Figure 18

Nevada: Depression Rates by Smoking Status

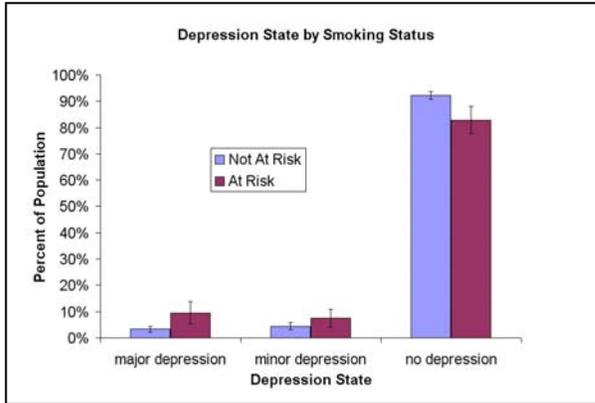


Figure 19

Figures 19, 20, & 21 compare rates of depression between people who are and are not at risk for smoking. At risk is defined as someone who has smoked 100 cigarettes in their lifetime and is a current smoker (regardless of rate).

Figure 19 shows strong relationships between being at risk for smoking and the presence or absence of depression as well as significant relationships between smoking status and major depression.

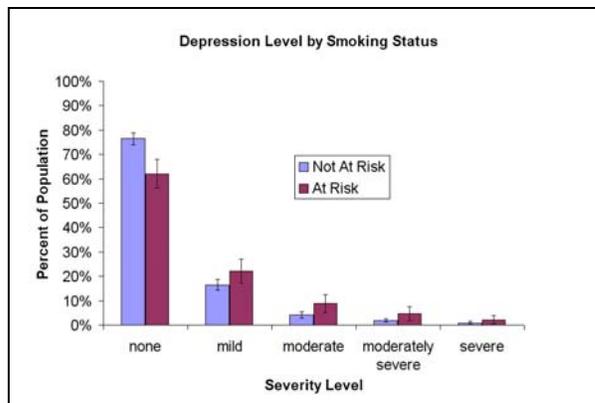


Figure 20

Figure 20 shows while there are significant differences between the presence or absence of depressive symptoms between people who are and are not at risk for smoking, when symptoms are present, the differences are not statistically significant.

Figure 21 shows that persons who are at risk of smoking score 10 or higher on depression severity significantly more than persons who are not at risk for smoking.

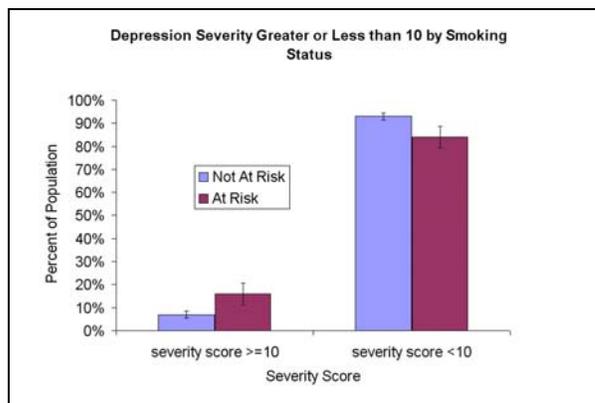


Figure 21

Nevada: Depression Rates by Leisure Time Exercise

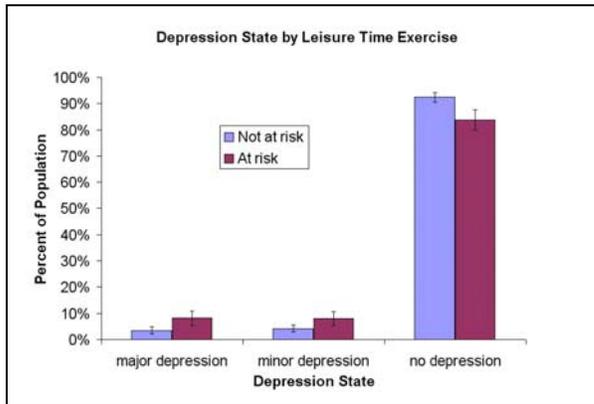


Figure 22

Figures 22, 23, & 24 show depression rates and leisure time exercise. In these data sets, persons are considered at-risk when they have not gotten any leisure time physical activity in the last 30 days.

Figure 22 shows depression state and leisure time physical activity. This graph indicates significant differences between persons who are and are not at risk for leisure time exercises with depressive symptoms and rates of major depression.

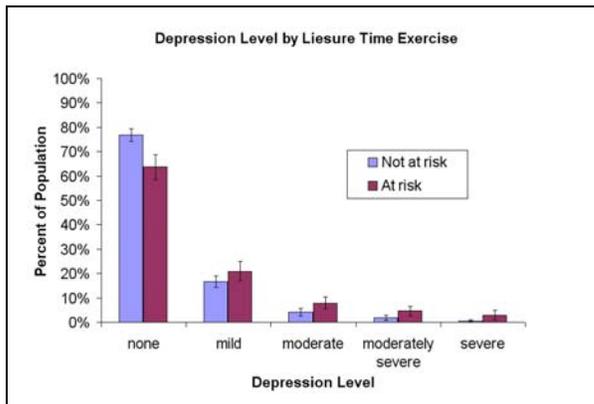


Figure 23

Figure 23 indicates that there is a significant difference between persons at risk and not who report depressive symptoms but that, as with other risk factors, when analyzed at varying levels of depression, the differences are not significant.

Figure 24 shows that persons who are at risk for leisure time activity are significantly more likely to score above 10 on the severity index than persons who are not at risk.

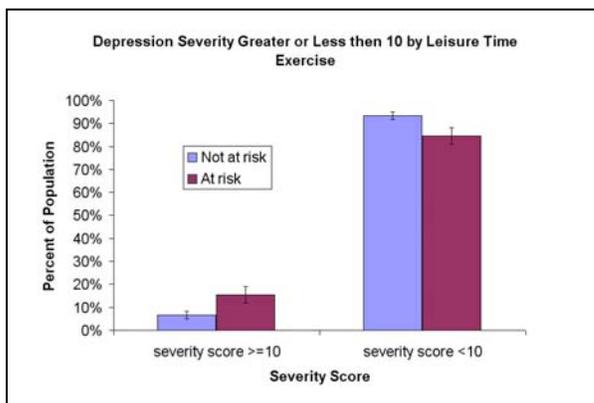


Figure 24

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