

Link Between HIV & Mental Health in Indiana

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Surveillance of depression and anxiety in people living with HIV (PLWH) can be an important resource for managing HIV symptoms and reducing transmission. About 18.45% of people living with HIV have depression and 27.48% of people living with HIV have anxiety. These rates were shown to be higher when compared to the general population. Expanded mental health resources for people living with HIV in Indiana can greatly improve health outcomes and adherence to care.

Background Facts

- There are about 1.2 million people living with HIV in the United States and 12,000 in the state of Indiana¹.
- HIV is a bloodborne pathogen that attacks the body's immune system and leaves the host susceptible to dangerous illnesses if proper treatment is not used²
- Prevention methods include safe sex practices, avoiding illicit drug use and taking PrEP³.
- Many Americans also suffer from anxiety and depression with estimates ranging from 5 to 20 percent of the total population⁴
- HIV coupled with one of these disorders may increase the likelihood that individuals miss treatment and avoid the doctor⁴.
- Anxiety is categorized by extreme fears and worry⁵, and depression is categorized by extreme fears of dread or unwillingness to do things⁵.
- Depression and anxiety can be improved with cognitive behavioral therapy and/or medication

Materials and Methods

This study examines the relationship between depression, anxiety and HIV using data from the Medical Monitoring Project (MMP)⁶ and the National Health Interview Survey (NHIS)⁷. Data were analyzed as a case (MMP) – control (NHIS) study with a sample population of 656 people living with HIV in Indiana and 31,218 controls living in the United States. The likelihood of a diagnosis of depression or anxiety was calculated based on the results of the PHQ-29 and GAD-28 questions responded to as part of each questionnaire. The sum of each score was calculated, and a score of 3 or more for each set of questions signified a high probability of medical diagnosis for depression or anxiety.

Depression PHQ-2: Over the **last 2 weeks**, how often have you been bothered by the following problems?

1

Little interest or pleasure in doing things

2

Feeling down, depressed or hopeless

Anxiety GAD-2: Over the **last 2 weeks**, how often have you been bothered by the following problems?

1

Feeling nervous, anxious or on edge

2

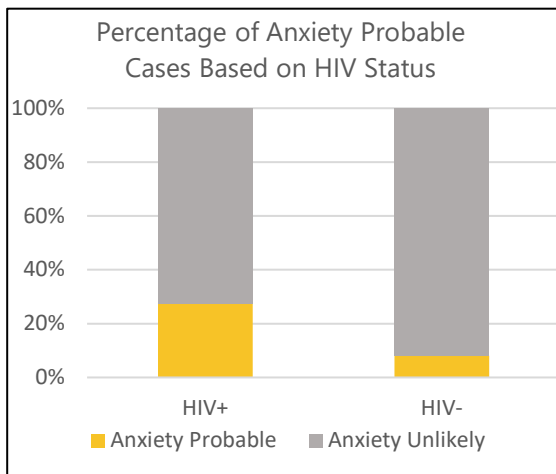
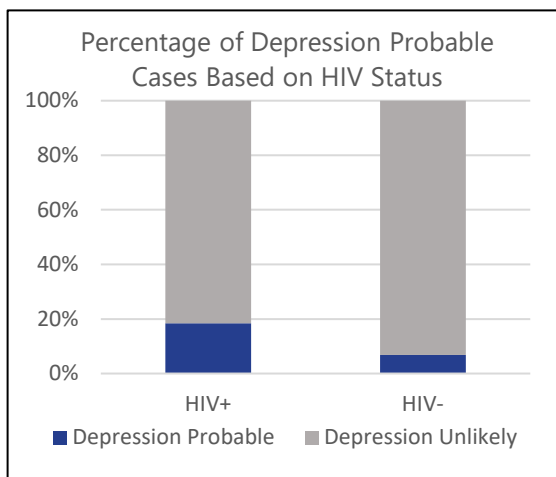
Not being able to stop or control worrying

0 - Not at all

1 - Several days

2 - More than half the days

3 - Nearly every day



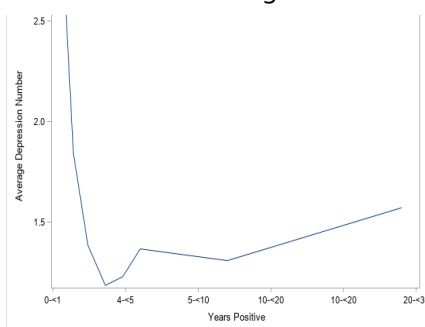
Implications

The results presented serve as a good benchmark for mental health concerns in PLWH in Indiana. The door is open to further the discussion of the importance of mental health care within HIV services. Indiana HIV service providers may be motivated by these results to expand their screening of depression and anxiety in PLWH, especially in those newly diagnosed. Helping PLWH improve their mental health will likely translate into an improved physical health as well. Good mental health can improve follow up with medical providers and taking medication. Further research will be needed to generate a more accurate picture of mental health in PLWH in Indiana.

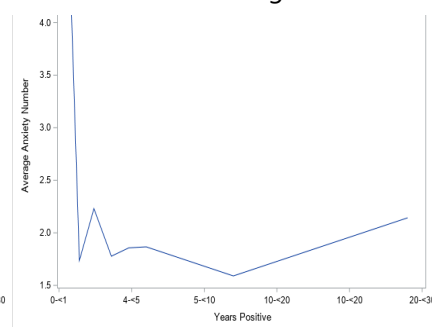
Study Results

- **18.45%** of PLWH are likely to have depression compared to **6.77%** of the control population.
- **27.48%** of PLWH are likely to have anxiety compared to **8.12%** of the control population.
- PLWH are **1.607** times more likely to have depression compared to the control population.
- PLWH are **2.654** times more likely to have anxiety compared to the control population.
 - These odds ratios are calculated while controlling for confounding variables: race, sex, and income.

Average Depression Number Since HIV Diagnosis



Average Anxiety Number Since HIV Diagnosis



- Depression and anxiety **spike in the first 5 years of an HIV diagnosis**, and then follow a sharp decline.
- The results indicate that HIV increases the likelihood of having depression and anxiety, and the risk is the highest in the first few years after diagnosis.

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