



# Association Between Mental Health and Employment among Individuals with Disabilities

Fatima Akmal Leghari, M.Ed, Khalid Alogbi, MPH, George Mugoya, PhD, MPH, CRC

The University of Alabama



## INTRODUCTION

Research indicates that people with disabilities (PWDs) are less likely to participate in the workforce than those without disabilities<sup>1</sup>. The U.S. Bureau of Labor reports that in 2022, **only 21.3 percent of persons with disabilities were employed, compared to 65.4 percent of their counterparts without disabilities**<sup>2</sup>. PWDs also face other economic and social disadvantages, such as low income, poor education, and poorer health.

The **need to address** this is because research indicates that poor mental health is not only associated with unemployment but can also lead to **poor life satisfaction**<sup>3</sup>. Interventions aimed at improving employment opportunities for PWDs could prove beneficial.

The **goal** of the current study was to examine the relationship between employment status and poor mental health.

**Hypothesis:** PWDs who are unemployed are more likely to report poor mental health

## METHODS

### Data Set:

Data from the current study was obtained from 2022 National Survey on Health and Disability (NSHD). The NSHD used a purposive convenience sampling approach and was fielded from May 2 - September 2, 2022. Recruitment was conducted in cooperation with more than 60 national disability organizations who distributed the survey information and link via their networks, social media, and newsletters. This recruitment method yielded responses **from 2,725 adults with disabilities**.

### Measures:

- **Poor mental health** was assessed by asking participants “how many days in the past 30 days was your mental health was not good.” Poor mental health was defined as reporting 14 or more days when mental health was not good and coded as 1<sup>4</sup>. Those reporting less than 14 days were coded as 0.
- **Employment status** was assessed by the question “Are you currently working for pay or self-employed.” Employment status was categorized and coded as: 1—Employed (employed or self-employed), 2—Unemployed, 3—Retired.
- **Other covariates** included primary disability, age group, gender, income, educational attainment, and marital status.

## METHODS Continued

### Data Analysis:

Data were analyzed using Stata/MP v. 17<sup>5</sup>. First conducted descriptive analyses followed by univariate logistic regression where we assessed the individual relationship between mental health and each of the covariates. Finally, we conducted a multivariate logistic regression where all the covariates were included in the model.

## RESULTS

**Table 1. Descriptive Statistics**

|  | N     | %    |
|--|-------|------|
| <b>Poor Mental Health</b>              |       |      |
| No (Less than 14 days)                 | 1,662 | 61.3 |
| Yes (14 Plus)                          | 1,048 | 38.7 |
| <b>Employment</b>                      |       |      |
| Employed                               | 1,562 | 57.4 |
| Unemployed                             | 848   | 31.2 |
| Retired                                | 311   | 11.4 |
| <b>Primary Disability</b>              |       |      |
| Physical                               | 523   | 19.2 |
| Mental                                 | 423   | 15.5 |
| Chronic                                | 789   | 29.0 |
| Other                                  | 856   | 31.4 |
| <b>Gender</b>                          |       |      |
| Woman                                  | 1,682 | 62.3 |
| Man                                    | 645   | 23.9 |
| Other                                  | 372   | 13.8 |
| <b>Income Level</b>                    |       |      |
| Under 75% FPL                          | 302   | 11.3 |
| 75-137% FPL                            | 445   | 16.7 |
| 138-249% FPL                           | 526   | 19.7 |
| 250-399% FPL                           | 563   | 21.1 |
| 400% FPL and over                      | 821   | 30.8 |
| <b>Marital Status</b>                  |       |      |
| Single, never married                  | 1,012 | 37.2 |
| Single, divorced or widowed            | 410   | 15.1 |
| Married                                | 993   | 36.5 |
| Living with a partner, but not married | 267   | 9.8  |
| <b>Highest Education Attainment</b>    |       |      |
| High School or Below                   | 291   | 10.7 |
| Some College                           | 703   | 25.8 |
| Bachelors                              | 844   | 31.0 |
| Graduate or Doctoral                   | 871   | 32.0 |
| <b>Source of Insurance Coverage</b>    |       |      |
| Employment                             | 1,137 | 41.7 |
| Government                             | 1,424 | 52.3 |
| No Insurance                           | 164   | 6.0  |

**Table 1:**

- Over 62% of the participants identified as female.
- A third reported an income of 400% or above of the FPL
- Over half (52.3%) received health insurance from government sources.
- 37.2% were single and never married while 36.2% were married

**Table 2:**

- Unemployed participants were more likely to report poor mental health than those who were employed both in the unadjusted (OR 1.77, p<0.001) and adjusted analyses (OR 1.48, p<0.001)
- Compared to participants with physical disabilities, those with mental disabilities were more than twice (OR 2.45, p<0.001) likely to report poor mental health.

**Table 2. Logistic Regression for the Association of Poor Mental Health with Employment Among Persons with Disabilities**

| Poor Mental Health                                       | Bivariate |          |      | Multivariate |          |      |
|--|-----------|----------|------|--------------|----------|------|
|  | OR        | [95% CI] |      | OR           | [95% CI] |      |
| <b>Employment (Re: Employed)</b>                         |           |          |      |              |          |      |
| Unemployed   | 1.77***   | 1.50     | 2.10 | 1.48***      | 1.22     | 1.80 |
| Retired  | 0.64**    | 0.49     | 0.84 | 1.08         | 0.77     | 1.51 |
| <b>Primary Disability (Re: Physical Disability)</b>      |           |          |      |              |          |      |
| Mental   | 2.81***   | 2.15     | 3.67 | 2.45***      | 1.84     | 3.26 |
| Chronic  | 1.43**    | 1.13     | 1.80 | 1.30*        | 1.01     | 1.67 |
| Other  | 1.19      | 0.94     | 1.50 | 1.07         | 0.83     | 1.37 |
| No Response  | 1.66*     | 1.12     | 2.46 | 1.41         | 0.91     | 2.19 |
| <b>Gender (Re: Woman)</b>                                |           |          |      |              |          |      |
| Man  | 0.71**    | 0.59     | 0.87 | 0.66***      | 0.54     | 0.82 |
| Other  | 2.69***   | 2.14     | 3.39 | 2.11***      | 1.64     | 2.72 |
| <b>Total Income based on FPL (RE: Under 75%)</b>         |           |          |      |              |          |      |
| 75-137% FPL  | 0.85      | 0.63     | 1.13 | 1.01         | 0.74     | 1.39 |
| 138-249% FPL   | 0.61**    | 0.46     | 0.81 | 0.75         | 0.55     | 1.03 |
| 250-399% FPL   | 0.57***   | 0.43     | 0.76 | 0.77         | 0.56     | 1.06 |
| 400% FPL and above                                       | 0.40***   | 0.31     | 0.53 | 0.60**       | 0.44     | 0.82 |
| <b>Marital Status (RE: Single, never married)</b>        |           |          |      |              |          |      |
| Single, divorced or widowed                              | 1.04      | 0.83     | 1.32 | 1.32*        | 1.01     | 1.73 |
| Married  | 0.71***   | 0.59     | 0.85 | 1.05         | 0.84     | 1.30 |
| living with partner but not married                      | 1.35*     | 1.03     | 1.78 | 1.31         | 0.97     | 1.75 |
| <b>Highest Level of Education (High School or Below)</b> |           |          |      |              |          |      |
| Some College   | 1.14      | 0.87     | 1.50 | 1.18         | 0.87     | 1.60 |
| Bachelors  | 0.80      | 0.61     | 1.05 | 0.94         | 0.69     | 1.27 |
| Graduate or Doctoral                                     | 0.52***   | 0.40     | 0.69 | 0.70*        | 0.51     | 0.97 |

*Note.* 95% CI=upper and lower CIs at 95% significance; p-value statistical significance set at 95%, two sided; \*.05; \*\*.01; \*\*\*<.001. FPL= Federal Poverty Level. The multivariate model controls for all covariates while the bivariate model assesses covariates individually.

## DISCUSSION AND CONCLUSION

- The study found that over a third of participants (38.7%) with disabilities reported poor mental health, a significantly higher rate than the **10% to 14%** seen in the general population<sup>6,7</sup>.
- Individuals with mental health disabilities were over **twice as likely** to report poor mental health compared to those with physical disabilities, potentially due to their condition.
- The study also **confirmed our hypothesis** that unemployment was associated with poor mental health status. Therefore, clinicians should consider a patient's employment history when treating PWDs to better support their mental health.

## REFERENCES

1. Bonaccio, S., Connelly, C. E., Gellatly, I. R., Jetha, A., & Martin Ginis, K. A. (2020). The participation of people with disabilities in the workplace across the employment cycle: Employer concerns and research evidence. *Journal of Business and Psychology*, 35, 135-158.
2. Organization for Economic Cooperation and Development (OECD). (2010). *Sickness, Disability and Work: Breaking the Barriers: A Synthesis of Findings across OECD Countries*, OECD Publishing, Paris. <https://doi.org/10.1787/9789264088856-en>.
3. Gedikli, C., Miraglia, M., Connolly, S., Bryan, M., & Watson, W. (2022). The relationship between unemployment and wellbeing: an updated meta-analysis of longitudinal evidence. *European Journal of Work and Organizational Psychology*, DOI: [10.1080/1359432X.2022.2106855](https://doi.org/10.1080/1359432X.2022.2106855)
4. Miyakado-Steger, H., & Seidel, S. (2019). Peer Reviewed: Using the Behavioral Risk Factor Surveillance System to Assess Mental Health, Travis County, Texas, 2011–2016. *Preventing Chronic Disease*, 16.
5. StataCorp. (2021). *Stata Release 12.1. College Station, TX: StataCorp LP*.
6. Kapp, J.M., Micheas, L., Holmes, S. et al. Prevalence of Poor Mental Health Days and Adverse Childhood Experience Reporting in U.S. Adults Before and After COVID-19. *Community Ment Health J* 39, 233–242 (2023). <https://doi.org/10.1007/s10597-022-01001-0>
7. Emerson, E., Vitek, B., Reebel, B., Maitiq-Baell, L., Sorensen, J., & Färm, I. (2012). *Health inequalities and people with disabilities in Europe: social exclusion, vulnerability and disadvantage task group background paper 5*. Copenhagen: European Regional Office of the World Health Organization.