MENTAL HEALTH IN TECH

A Workplace Insight Study

PROJECT SUMMARY

This project explores the mental health landscape of employees in the tech industry through a structured analysis of survey responses collected by Open Sourcing Mental Illness (OSMI) in 2014. The dataset contains responses from over 1,200 individuals across different countries, roles, and organizational settings.
The focus is to identify patterns in mental health treatment, awareness, and workplace support, using exploratory data analysis techniques.

The study aims to provide actionable insights that can help organizations create healthier, more inclusive workplaces. It analyzes factors such as age, gender, remote work status, company type, family history, and perceived work interference, to understand how these variables influence mental health outcomes and treatment-seeking behavior.

PROBLEM STATEMENT

Mental health remains a sensitive and often overlooked aspect of employee well-being, especially in the high-pressure environments of the tech industry. Many organizations lack clarity on how workplace culture, demographic factors, or job types affect mental health awareness and support.

There is limited visibility into:

- Which employees are more likely to seek treatment
- How company policies affect mental health outcomes
- The extent of interference mental health has on work productivity

This project addresses the need for a deeper understanding of these dynamics using real-world survey data.

BUSINESS OBJECTIVE

The goal of this analysis is to help decision-makers in tech organizations:

- Understand key patterns in mental health treatment and awareness
- Identify high-risk segments based on demographic and work-related variables
- Compare mental health support between tech and non-tech companies
- Inform better policies, training programs, and support systems that promote mental well-being in the workplace

The findings are meant to guide interventions that improve employee satisfaction, productivity, and retention.

To guide the analysis, we framed five key business questions:

1. What influences an employee's decision to seek mental health treatment?
2. Do tech and non-tech companies differ in offering mental health benefits?
3. How do gender and age affect treatment-seeking behavior?
4. How does remote vs onsite work influence mental health experience?
5. How does the frequency of mental health illness and attitudes vary by geographic location?

DATASET DESCRIPTION

Dataset Source:
The dataset was originally compiled by Open Sourcing Mental Illness (OSMI), based on a 2014 mental health survey targeting employees in the technology sector. The responses were collected anonymously and focus on individual experiences and perceptions regarding mental health at work.

Basic Structure

- Total Records: 1,259
- Number of Columns: 27
- Data Type: Survey responses (mixed – categorical, numeric, text)
- Key Variables:
    1. Age, Gender, Country
    2. self_employed, remote_work, tech_company
    3. family_history, treatment, benefits, care_options, wellness_program, seek_help
    4. work_interfere, anonymity, leave, mental_health_consequence

Data Preparation & Cleaning

- Filtered out invalid ages (outside the range of 18 to 100)
- Standardized categorical values (e.g., harmonizing gender entries)
- Handled missing values:
- Filled self_employed and work_interfere with "Don't know" where missing
- Dropped non-informative column: comments
- Retained geographic data (state) for potential location-based analysis

Notes

- The dataset contains a global view, but responses are concentrated in the United States, United Kingdom, Canada, Germany, and India.
- Some categorical variables had multiple levels and required grouping or transformation for clearer visualization.

EXPLORATORY DATA ANALYSIS (EDA)

The analysis was structured into three layers:

Univariate Analysis – Understanding individual variable distributions
Bivariate Analysis – Exploring relationships between two variables
Multivariate Analysis – Combining variables to uncover deeper patterns

Each visualization was selected purposefully to highlight patterns that influence business decisions related to employee mental health and workplace culture.

Univariate Analysis

- Age Distribution: Most respondents are aged 25–35.
- Gender Breakdown: Majority male, but inclusive of Female, Other, and Trans.
- Top 10 Countries: USA leads, followed by UK, Canada, Germany, and India.
- Treatment Rate: 62% have sought mental health treatment.
- Work Type: 65% work remotely.
- Company Type: Majority from tech firms.
- Work Interference: Most report “Sometimes” interference.

Bivariate Analysis

- Treatment by Gender: Females and Trans individuals show higher treatment rates.
- Remote vs Treatment: Onsite workers more likely to seek treatment.

- Tech vs Non-Tech Benefits: Non-tech firms offer better support.
- Family History vs Treatment: Strong positive correlation.
- Country-wise Treatment: US and UK lead; India lags, while Germany shows moderate treatment uptake.

Multivariate Analysis

- Country & Gender: Gender gap visible in India and Germany.
- Work Interference & Treatment: Treated group reports lower interference.
- Age & Treatment: Younger employees seek more treatment; older males show unmet needs.

KEY FINDINGS

- Most respondents are aged 25–35.
- Mental health treatment is more common in remote roles, among younger employees, and among those with a family history.
- Males, especially older, are less likely to seek treatment despite experiencing work interference.
- Females and Trans respondents show proactive help-seeking behavior.
- Non-tech companies sometimes offer better mental health benefits than tech firms.
- Geographic variation reveals strong treatment rates in the US and UK. India lags significantly, while Germany shows moderate engagement.

BUSINESS RECOMMENDATIONS

1. Normalize Mental Health Conversations
Promote a culture where mental health is openly discussed without fear of judgment.

2. Offer Tailored Support by Demographic
Design support systems that consider age, gender, and geographic needs.

3. Equip Managers to Handle Mental Health Sensitively
Train people managers to recognize early signs of distress and respond constructively.

4. Reassess Mental Health Benefits
Audit and improve the accessibility and clarity of existing benefits.

5. Implement Periodic Mental Health Surveys
Create feedback loops through anonymous pulse surveys every 6–12 months.

CONCLUSION

This exploratory data analysis sheds light on the often-underrepresented issue of mental health in the tech industry. Through careful examination of demographics, workplace structures, and behavioral patterns, we uncovered meaningful insights.

Organizations in the tech sector have a clear opportunity to take the lead in building a culture of openness, offering inclusive and accessible mental health support, and continuously adapting to the needs of a dynamic workforce.

If implemented thoughtfully, the insights from this study can drive not only employee well-being, but also long-term business resilience and retention.