Project 1: Mental Health in Tech

* Mental Health in Tech: People working in tech are often at their desks for extended amounts of time. Explore how this trend correlates with mental health. Examine the [data collected through surveys](https://www.kaggle.com/datasets/osmi/mental-health-in-tech-survey)
* [Links to an external site.](https://www.kaggle.com/datasets/osmi/mental-health-in-tech-survey)
* and search for trends. Find out if there is a link between mental health and companies that offer wellness programs. What do the results show you about the state of mental health in tech? Can you suggest steps that companies can take to help their employees?

## MAIN QUESTIONS

1. How do employees perceive their workplace culture regarding mental health?) (Jane)
2. Do males seek mental health treatments less often than females in tech companies? (Loku)
3. Is mental health more prevalent in different regions?(US) Does US have a bigger issue with mental health compared to other countries?(Keegan) Treatment
4. Does mental health interfere with work? (Lishi ) Bar charts (more grouping - split by company size, family history, males/females)

## Our project aims to uncover potential influences on mental health and treatment-seeking behavior in the tech industry.

## **Analysis**

Note; total response from the **USA was 840 and 593 for responses from Outside the USA**

Keegan

1. Mental Health Treatment Seeking (USA vs Outside USA)

* Our data indicates that individuals in the USA are significantly more likely to seek mental health treatment, with the number of responses seeking help being doubled compared to countries outside the USA.a
* In contrast, there is a slight increase in the number of individuals outside the USA who report not seeking treatment.
* This disparity may suggest that mental health is prioritized more highly in the USA compared to other countries, highlighting potential cultural differences in the perception and importance of mental health care
* USA - YES: 550 - NO: 289
* Outside USA - Yes: 290 - NO: 304
* US: Yes = 65.48%, No = 34.52%
* Other Countries: Yes = 48.74%, No = 51.26%

Revised version with percentage.

Our data indicates that individuals in the USA are significantly more likely to seek mental health treatment, with 65.48% of responses indicating they have sought help compared to only 48.74% of individuals outside the USA. Specifically, in the USA, 550 individuals reported seeking treatment (Yes), while 289 did not (No). In contrast, 290 individuals outside the USA sought treatment, while 304 reported not seeking help.

This Visible difference suggests that mental health is prioritized more highly in the USA compared to other countries, highlighting cultural differences in the perception and importance of mental health care.

The higher percentage of treatment-seeking behavior in the USA may be influenced by factors such as greater public awareness, access to mental health resources, and reduced stigma surrounding mental health issues.

Also, the slight increase in the number of individuals outside the USA who report not seeking treatment (51.26%) compared to those who do (48.74%) raises questions about the barriers to mental health care in those regions. This trend indicates a need for improved mental health awareness and resources in countries outside the USA. #May not include this in presentation, just docs for this paragraph.#

1. Workplaces that offer help for Mental Health (USA vs Outside)

* Data percentages USA yes: 33%, NO: 40%, IDK: 27%
* Outside USA: YES: 18%, no: 63%, IDK: 19%
* Our data indicates that 33% of respondents in the USA reported that their workplace offers mental health support, compared to only 18% of respondents from countries outside the USA.
* In the USA, 40% responded "No" and 27% answered, "I don't know." Compared to outside the USA, 63% responded "No" and 19% said "I don't know."
* These findings suggest that while both regions have significant portions of individuals who are uncertain or do not receive mental health support, the USA demonstrates a greater emphasis on mental health initiatives in the workplace.
* This reinforces the notion that mental health may be prioritized more highly in the USA compared to other countries.

Revised

In our findings of workplace mental health support, we found notable differences between responses in the USA and those from other countries.

In the USA, 33% reported that their workplace offers mental health support, while only 18% of respondents from outside the USA indicated the same.

However, it's important to note that 40% of respondents in the USA answered "No" to the question of whether their workplace provides mental health support, and 27% responded "I don't know." In contrast, among respondents from other regions, 63% answered "No," and 19% said "I don't know."

These findings suggest that while a significant portion of individuals in both regions are uncertain about or do not receive mental health support, the USA appears to place a greater emphasis on mental health initiatives in the workplace. This further reinforces a higher prioritization of mental health in the USA compared to other countries.

However, the data also highlights a concerning trend: despite having more workplace treatment options for mental health, the USA faces a larger issue with mental health challenges among its workforce.

Lishi’ analysis

1. Most people in tech seems to have mental disorder, with about 40.1% responded 'yes' regarding mental health disorders, while 22.8% responded 'maybe,' and only 37.1% said 'no.'

* 40.1% of respondents reported 'yes' which indicates that mental health is a critical issue that may need to be addressed in this industry.
* The 22.8% who responded 'maybe' reflects a level of uncertainty or lack of awareness regarding mental health disorders. This could point to the need for more education and resources about mental health in the workplace.
* The 37.1% who said 'no' indicates that individuals do not identify with having a mental health disorder. However, this figure is still lower than the percentage of those who believe they do, which may suggest that mental health issues are more common than perceived.
* Given the high percentage of individuals acknowledging mental health disorders, it may be beneficial for tech companies to implement mental health initiatives, such as wellness programs, mental health days, and access to counseling services. This could help create a more supportive environment for employees.

1. A significant majority (88.7%) of individuals with a mental disorder believe that their productivity is affected. Meanwhile, 7.3% are uncertain, and only 4.0% reported that it does not impact their productivity.

A significant majority (88.7%) of individuals with a mental disorder believe that their productivity is affected. Meanwhile, 7.3% are uncertain, and only 4.0% reported that it does not impact their productivity.

The fact that 88.7% of individuals believe their productivity is affected by their mental disorder indicates a strong awareness of the relationship between mental health and work performance. This suggests that mental health issues are a significant concern for a large portion of the workforce.

With only 4.0% reporting that their productivity is not impacted, it highlights that very few individuals feel unaffected by their mental health challenges. This could imply that mental health disorders are commonly perceived as disruptive to work.

The 7.3% of respondents who are uncertain about the impact on their productivity may reflect a lack of awareness or understanding of how their mental health affects their work. This uncertainty could be an opportunity for organizations to provide education and resources to help individuals better understand their situations.

With the overwhelming majority indicating that their productivity is affected suggests a strong need for workplaces to address mental health issues proactively. This could include implementing mental health programs, providing access to counseling services, and creating a supportive work environment.

1. When it comes to the extent to which mental health disorders interfere with work, the responses were as follows: 39.1% indicated minimal influence (1-25%), 31.8% reported moderate influence, 18.2% noted moderate to severe influence, and approximately 10% believed that mental health disorders could have a substantial impact on their work (76-100%).

When it comes to the extent to which mental health disorders interfere with work, the responses were as follows: 39.1% indicated minimal influence (1-25%), 31.8% reported moderate influence, 18.2% noted moderate to severe influence, and approximately 10% believed that mental health disorders could have a substantial impact on their work (76-100%).

The fact that 39.1% of respondents reported minimal influence (1-25%) suggests that a significant portion of individuals may be managing their mental health challenges effectively.

With 31.8% reporting moderate influence, it indicates that a substantial number of individuals experience some level of disruption in their work due to mental health issues. This could point to the need for workplace support systems.

For the 18.2% who noted moderate to severe influence, along with the 10% who believe in a severe impact (76-100%), highlights a critical area of concern. This indicates that almost 1/3 of the workforce is significantly affected, which could lead to decreased productivity, increased absenteeism, and higher turnover rates.

This raises the need for awareness and resources related to mental health in the workplace. Organizations might consider implementing mental health programs, providing training for managers, and fostering a supportive environment to help those who are affected.

(Everyone write your analysis under Mine)

Loku

**1. First Bar Graph: Overall Mental Health Treatment Seeking by Gender**

* **Code Purpose:**
  + This bar graph shows the overall count of males and females who have sought mental health treatment, regardless of their country.
  + The data is grouped by gender to identify how frequently males and females seek help from mental health professionals in the tech industry.
* **Key Insights:**
  + From the bar graph, I observe that males are more likely to seek treatment for mental health issues compared to females.
  + This supports a common trend observed across industries: males tend to be more proactive in seeking mental health support, while females are more likely to avoid or delay treatment.

**2. Pie Chart: Proportion of Mental Health Treatment Seeking by Gender**

* **Code Purpose:**
  + The pie chart gives a proportionate view of percentage males and females have sought mental health treatment overall.
  + Each slice of the pie represents the percentage of male and female tech employees who answered 'Yes' to seeking mental health treatment.
* **Key Insights:**
  + The pie chart visually confirms the findings from the bar graph: a larger portion of males seek treatment for mental health issues compared to females.
  + I see that **71**% of the individuals who sought mental health treatment are male, while **29%** are female.
  + The percentage values make it clear that males make up a significantly higher proportion of mental health treatment seekers in the tech industry.

**3. Last Bar Graph: Mental Health Treatment Seeking by Gender (US vs. Non-US)**

* **Code Purpose:**
  + This graph compares the mental health treatment-seeking behavior between tech workers in the United States and other countries, with the data broken down by gender.
  + The grouped bars (one set for the US and one for non-US countries) show how males and females behave in terms of seeking mental health treatment in different regions.
* **Key Insights:**
  + **In the United States:** Males are more likely to seek mental health treatment than Females, reflecting the same trend seen in the overall data. This suggests that even in a tech-heavy environment like the US, females may be less comfortable seeking mental health care.
  + **Outside the United States:** The same gender-based difference is seen, with males seeking treatment more than females, although the gap may vary depending on specific regions or cultures.

**Overall Conclusion:**

* Across all the graphs, I consistently see that males are more likely to seek mental health treatment than females in the tech industry, both in the United States and globally.
* These insights highlight the need for gender-sensitive approaches to mental health support in the tech industry, especially encouraging females to seek the care they need.

## **Script for slides**

**Slide 1:**

Intro - Hi everyone, Welcome to our project for mental health in the tech industry.

**Slide 2:**

A little bit of background of our project, Since 2009, every second Thursday of September is R U OK Day, a day to increase awareness and encourage conversations around mental health. And we wanted to see if mental health was being addressed in a 2016 survey of individuals who work in the tech industry.

**Slide 3:**

Our project aims to uncover potential influences on mental health and treatment-seeking behavior in the tech industry.

**Slide 4:**

Now in order to guide our analysis we asked the following questions

1. Does mental health interfere with work?
2. Do males seek mental health treatments less often than females in tech companies?
3. Is mental health more prevalent in different regions? Does US have a bigger issue with mental health compared to other countries?
4. How do employees perceive their workplace culture regarding mental health?

Now i will hand it over to lIshi

**Slide 5:**

Thanks, Keegan. Good evening, everyone. My question for our topic is: Does mental health interfere with work? I analysed the data from three questions in the survey to answer this question:

1. General Survey Question: Do you think you have a mental disorder?
2. Productivity Impact: Do you think your productivity is ever affected by mental health issues?
3. The extent of Impact: What percentage of your work time is affected by a mental health issue?

**Slide 6:**

This pie chart is about the first question: Do you think you have a mental health disorder?

From the pie chart, we can see that about 40.1% responded "yes," 22.8% responded "maybe," and only 37.1% answered "no."

This suggests that mental health issues are more common than perceived.

The 22.8% who responded "maybe" reflects a level of uncertainty or lack of awareness regarding mental health disorders. This points to the need for more education and resources about mental health in the workplace.

**Slide 7:**

Next, this pie chart addresses the second question: If you have or may have a mental health disorder, do you think your productivity is ever affected?

The results show that a significant majority of individuals with a mental disorder—almost 90%—believe their productivity is affected. Meanwhile, 7.3% are uncertain, and only 4.0% reported that it does not impact their productivity. This highlights that very few individuals feel unaffected by their mental health challenges.

**Slide 8:**

Finally, regarding the last question about the extent to which mental health disorders interfere with work, the responses were :

* 39.1% indicated minimal influence (1-25%)
* 31.8% reported moderate influence
* 18.2% mentioned moderate to severe influence
* Approximately 10% believed that mental health disorders could substantially impact their work (76-100%).

This indicates that almost one-third of the workforce is significantly affected in terms of productivity.

**Slide 9:**

* To answer the main question: Does mental health interfere with work? The answer is yes; about 90% of people with mental health disorders suggested that their work is affected to varying degrees, with about one-third reporting moderate to severe impacts.
* It is crucial to note that mental disorders are commonly occurring from the tech surveys. It may be beneficial for tech companies to implement mental health initiatives such as wellness programs, mental health days, and access to counselling services.

Hand over to Loku

**Slide 10:**

Thank you Lishi, hello everyone, today I’ll be presenting one of our group's analyses on whether males seek mental health treatment less often than females in tech companies. Mental health issues are critical in the fast-paced tech industry, and understanding gender differences in seeking treatment can help improve support systems. Let’s begin by comparing mental health treatment seeking behaviour between the U.S. and other countries.

**Slide 11:**

This bar graph compares the number of males and females who sought mental health treatment, split between tech employees in the United States and other countries. In the United States, we see 274 males compared to 140 females seeking mental health treatment. In other countries, 183 males sought treatment, while only 43 females did.

This reveals a consistent pattern across regions where males are more likely to seek treatment than females.

**Slide 12:**

This pie chart gives a broad, overall picture of the proportion of males and females who sought mental health treatment in the tech industry globally.

We can see that 71% of treatment seekers are male, while 29% are female. This aligns with what we saw in the regional breakdown: males are more likely to seek mental health treatment than females.

**Do males seek mental health treatments less often than females? Answer is ‘No’**

**Across all our data, the graphs confirm that males in tech are significantly more likely to seek mental health treatment than females.**

This trend highlights the need for tech companies to adopt more gender-sensitive mental health strategies.

Specifically, encouraging females to seek mental health care should be a priority to ensure equitable access to support.

**Now I will hand it over to Keegan**

**Slide 13:**

One of our main questions was: Is mental health more prevalent in different regions?

Does the USA have a bigger issue with mental health compared to other countries?

With this in mind, we looked through various sections in our data and focused on individuals who sought out treatment

As well as individuals who have been diagnosed with a mental health condition by a medical professional, and whether or not they have support in their workplace.

**Slide 14:**

We first looked for individuals seeking treatment in general for mental health. We wanted to know if people would get a general checkup to make sure their mental health was okay.

**Slide 15:**

Our data indicates that individuals in the USA are significantly more likely to seek mental health treatment, with 65.48% of responses indicating they have sought help compared to only 48.74% of individuals outside the USA.

This Visible difference suggests that mental health is prioritized more highly in the USA compared to other countries, highlighting cultural differences in the perception and importance of mental health care. And

The higher percentage of treatment-seeking behavior in the USA may be influenced by factors such as greater public awareness, access to mental health resources, and reduced stigma surrounding mental health issues.

**Slide 16:**

From that we wanted to know of those individuals who sought treatment and were diagnosed by a medical professional.

And we wanted to find out whether these individuals received help within their workplace.

**Slide 17:**

In our findings of workplace mental health support, we found notable differences between responses in the USA and those from other countries.

In the USA, 33% reported that their workplace offers mental health support, while only 18% of respondents from outside the USA indicated the same.

However, it's important to note that 40% of respondents in the USA answered "No" to the question of whether their workplace provides mental health support, and 27% responded "I don't know." In contrast, among respondents from other regions, 63% answered "No," and 19% said "I don't know."

These findings suggest that while a significant portion of individuals in both regions are uncertain about or do not receive mental health support.

While the USA appears to place a greater emphasis on mental health initiatives in the workplace. This further reinforces a higher prioritization of mental health in the USA compared to other countries.

However, the data also highlights a concerning trend: despite having more workplace treatment options for mental health, the USA faces a larger issue with mental health challenges among its workforce.

Now I will hand it over to Jane

**Slide 18:**

Thanks Keegan,

The question is are people willing to discuss the mental health issue now and why?

**Slide 19:**

There is a survey done in 2016 and the question is about people’s willingness to discuss physical health issue compared to mental health issue,

from the bar chart we could see

*44% of people are somewhat willing to discuss physical health issues ("Maybe Yes").*

*25% are willing to discuss physical health openly ("Yes").*

*However*

62% of people are unwilling to discuss mental health issues ("No").

Only 8% are willing to discuss mental health openly ("Yes").

So we could see that although organizations are focusing on raising awareness through initiatives like Are You Okay Day, people are still far more comfortable discussing physical health than mental health.

**Slide 20:**

A survey question about the impact of being identified with a mental health issue on one's career is designed to uncover the reasons why people may be reluctant to discuss mental health.

51% of respondents firmly believe mental health issues could impact careers and 32% believe the health issue may impact careers.

However, Only 10 % (9% + 1.5%) report actual negative career impacts.

So a significant majority of people perceive mental health issues as a potential threat to career progression, which may lead to hesitation in disclosing mental health concerns.

However, there is a clear discrepancy between perception and reality. While many people have concern about career progression, the actual number of those affected is much lower.

**Slide 21:**

Understanding the stigma surrounding mental health is crucial, as it remains a significant barrier to open discussions and support. Many individuals still hold the belief that mental health challenges can negatively impact their careers, which reflects the ongoing stigma that persists in professional environments.

As Keegan mentioned before, there is increasing support from the workplace now.

By fostering supportive environments in the workplace, organizations can help employees feel more comfortable seeking help, ultimately promoting a healthier, more inclusive, and productive work culture.

**Slide 22**:

To summarize,

The analysis of mental health in the workplace, particularly within the tech industry, reveals a complex landscape characterized by significant disparities, prevalent stigma, and the urgent need for comprehensive support systems.

Firstly, there is a notable reluctance to discuss mental health issues, This highlights a persistent stigma that organizations must address to foster a culture of openness and support.

Secondly, gender disparities in seeking mental health treatment are evident, as males are more likely to pursue help than females. This suggests the need for gender-sensitive strategies within organizations to encourage all employees to access mental health resources.

Additionally, despite the higher availability of workplace mental health support, the USA still faces significant mental health challenges, indicating that access alone is insufficient without addressing underlying issues and stigma.

Finally, high amounts of employees believe their productivity is affected. This shows the need for tech companies to implement mental health initiatives, such as wellness programs and counseling services, to create supportive environments that enhance employee well-being and productivity.

To sum it all up, addressing mental health in the workplace requires a multifaceted approach that includes raising awareness, reducing stigma, and providing accessible resources. By prioritizing mental health, organizations can foster a healthier, more inclusive workplace culture that ultimately benefits both employees and the overall productivity of the organization.