

FINAL PROJECT

TABLEAU COURSE

MENTAL HEALTH DISORDERS WORLDWIDE

BY Reihaneh Abbasi



INTRODUCTION

Mental health disorders are a global concern, impacting individuals of all ages and backgrounds. Beyond understanding the prevalence and characteristics of these disorders, it is essential to examine the infrastructure and resources available to support individuals affected by mental health conditions. This analysis goes beyond the examination of prevalence rates to explore the accessibility, effectiveness, and utilization of mental health services across different countries.

In addition to investigating the landscape of mental health disorders worldwide, this study delves into the infrastructure and resources dedicated to mental health care. It examines the availability of health units, mental hospitals, and human resources such as social workers and mental health professionals in various regions. Furthermore, it assesses the effectiveness of these facilities in providing timely and quality care to individuals with mental health needs.

Crucially, this analysis also considers the prevalence of suicide across different age groups and countries. By examining crude suicide rates, it seeks to understand the magnitude of this public health issue and identify populations at heightened risk. Additionally, it explores whether individuals receive adequate treatment for mental health disorders, shedding light on gaps in access to care and opportunities for intervention.

Through this multidimensional approach, we aim to paint a comprehensive picture of the global mental health landscape. By assessing the availability and effectiveness of mental health services and examining suicide rates and treatment utilization, we seek to inform policy and practice initiatives that promote mental well-being and ensure equitable access to mental health care for all individuals, regardless of geographic location or demographic characteristics.

We'll begin by examining several important charts and providing explanations for each. These charts will highlight key trends and insights into mental health disorders.

Following the chart exploration, we'll offer a brief conclusion summarizing the main findings. This will help ensure a better understanding of the insights gained from the data analysis.

Next, we'll move on to explore the dashboards, which offer a comprehensive view of mental disorders worldwide. These dashboards provide a convenient way to analyze the data and gain insights briefly.

Finally, we'll conclude our discussion with a final summary, drawing on the insights gleaned from both the individual charts and the dashboards. This will allow us to form a comprehensive understanding of the state of mental health disorders globally.

Daily Activity and Stress Levels in Adults with Sleep Disorders

Based on the provided information:

Sleep Disorder	Daily Steps	Heart Rate	Physical Activity Level	Quality of Sleep	Avg. Stress Level
None	1,500,800	15,115	12,691	1,670	5
Sleep Apnea	594,300	5,701	5,834	562	6
Insomnia	454,400	5,426	3,605	503	6

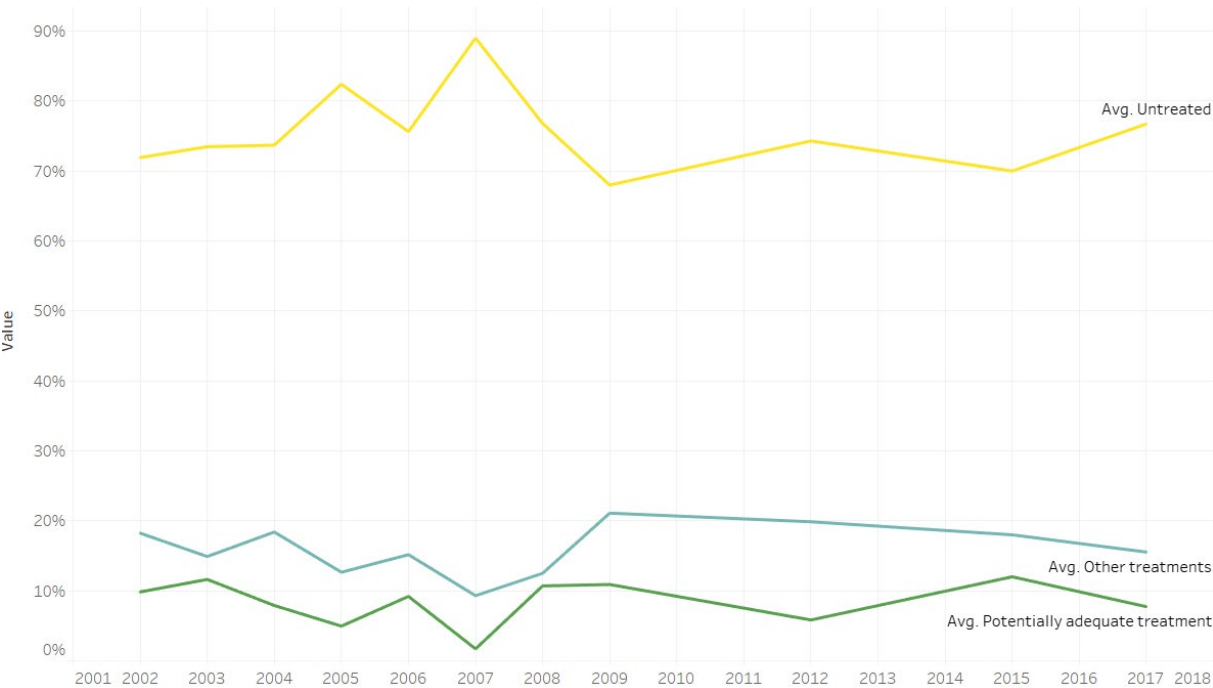
Adults without any sleep disorder report an average of approximately 1,500,800 daily steps, significantly higher than those with insomnia (454,400) and sleep apnea (594,300).

The level of activeness, measured by daily steps, is highest among adults without sleep disorders (12,000), followed by those with sleep apnea (5,800) and insomnia (3,600).

Additionally, the average stress level is lower among adults without sleep disorders compared to those with insomnia and sleep apnea, indicating higher stress levels in the latter two groups.

In conclusion, individuals with higher levels of physical activity and daily steps tend to experience better sleep quality and lower stress levels compared to those with sleep disorders such as insomnia and sleep apnea. This underscores the potential positive association between physical activity, sleep health, and stress reduction, emphasizing the importance of promoting an active lifestyle for overall well-being.

Mental Disorder Treatment

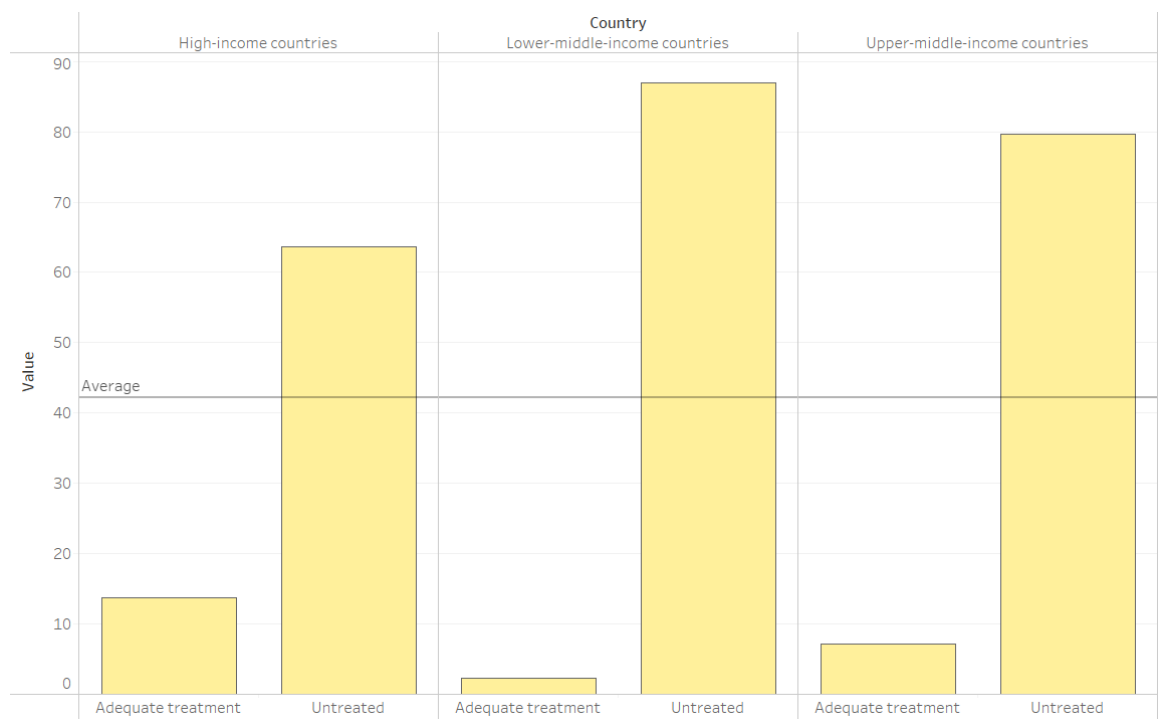


The line chart illustrates the percentages of people facing mental disorders over the years, segmented into three categories: untreated, potentially adequate treatment, and other treatment.

There is a noticeable disparity between the untreated group and the other two categories, with the untreated line consistently higher. The percentages of people receiving potentially adequate treatment and other treatment remain relatively stable over time, with little variation.

This suggests that a significant proportion of individuals worldwide are either unwilling or unable to seek treatment for their mental disorders, with approximately 70% to 90% remaining untreated.

Disparities in Mental Health Treatment Access Across Income Levels: A Global Perspective

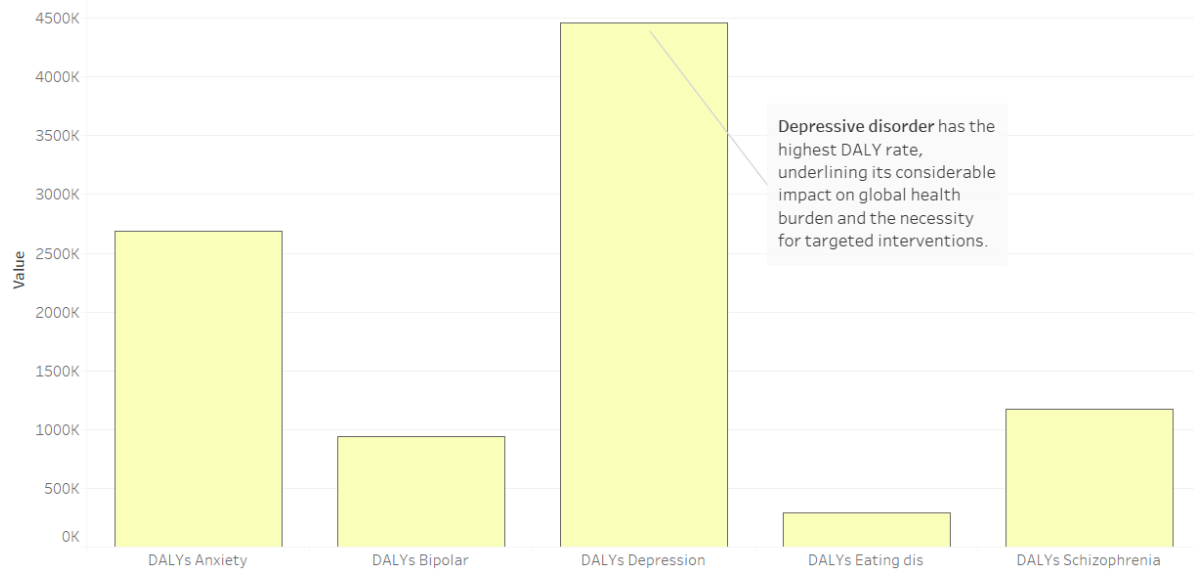


The bar charts depicting treatment rates and untreated percentages for mental health disorders in high-income, lower-middle-income, and upper-middle-income countries reveal concerning disparities in access to adequate treatment.

In high-income countries, only 14% of individuals receive adequate treatment, leaving a substantial portion of the population untreated at 64%. The situation is even more dire in lower-middle-income countries, where a mere 2% receive adequate treatment, with an overwhelming 87% left untreated. Similarly, in upper-middle-income countries, only 7% receive adequate treatment, while 80% remain untreated.

These findings underscore the urgent need for improved access to mental health services and resources, particularly in lower- and upper-middle-income countries. Addressing the treatment gap and ensuring equitable access to mental health care should be a priority to improve overall mental health outcomes worldwide.

Global Comparison of DALY Rates for Mental Disorders



Bar charts illustrating the Disability-Adjusted Life Year (DALY) rates for major mental disorders demonstrate the significant burden these conditions impose on global health. With millions of DALYs attributed to anxiety, bipolar disorder, depression, eating disorders, and schizophrenia, it is evident that mental health remains a pressing public health concern. These findings emphasize the urgent need for comprehensive and accessible mental health services, as well as continued efforts to raise awareness and reduce stigma surrounding mental illness. By addressing the burden of mental disorders, we can work towards improving overall health outcomes and enhancing the well-being of individuals worldwide.

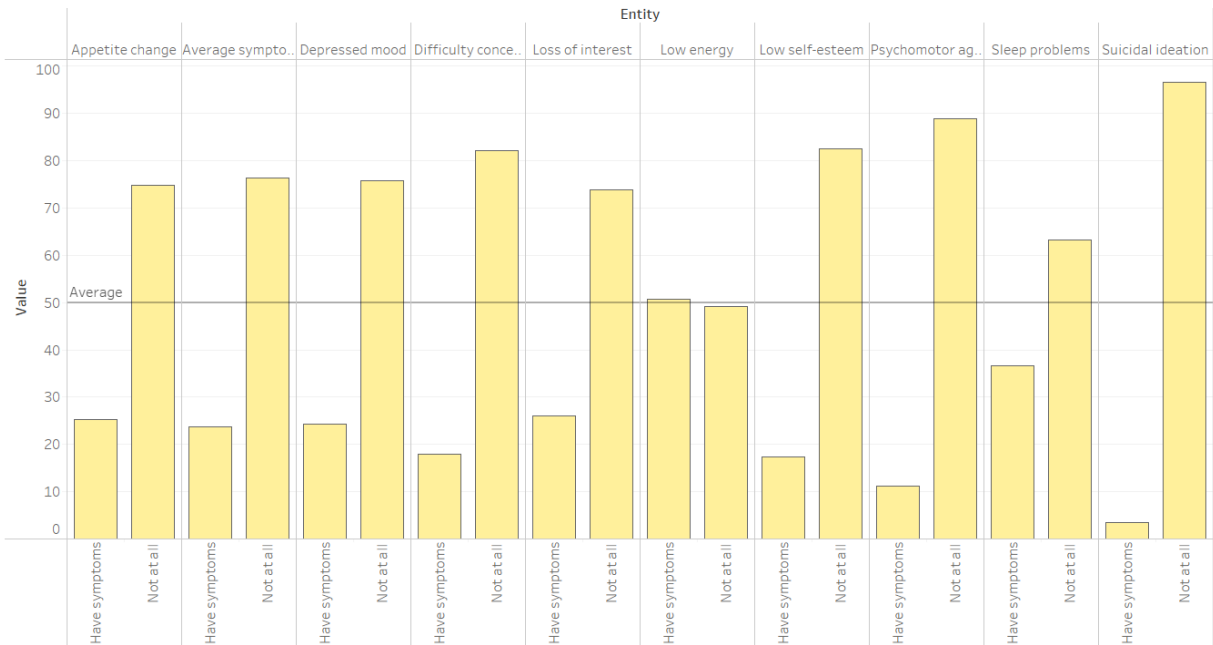
Top 10 Countries with Highest DALYs Rates for Mental Disorders

Country	DALYs Anxiety	DALYs Bipolar	DALYs Depression	DALYs Eating dis	DALYs Schizophrenia	Total
Palestine	15,661	5,086	38,065	916	4,727	64,454
Greenland	13,556	4,069	35,887	2,874	7,168	63,554
Portugal	22,648	5,625	26,229	2,451	5,113	62,066
Australia	15,788	7,232	25,131	5,660	7,419	61,229
New Zealand	21,075	9,665	19,257	3,572	7,432	61,001
Greece	16,180	5,849	29,388	2,697	5,222	59,336
Iran	20,636	5,271	25,582	1,433	4,840	57,762
Brazil	21,096	7,170	22,491	1,358	5,243	57,357
Lebanon	17,624	6,088	26,803	1,320	4,848	56,682
Ireland	19,083	4,500	22,083	2,419	6,869	54,955

The table lists the top 10 countries with the highest total Disability-Adjusted Life Year (DALY) rates. The countries are ranked by total DALYs, with Palestine, Greenland, and Portugal occupying the top three positions. The data underscores the significant burden of mental disorders in these countries, highlighting the need for targeted interventions and mental health initiatives to address the prevalence and impact of these conditions on population health.

By prioritizing mental health resources and implementing effective prevention and treatment strategies, policymakers and healthcare professionals can work towards reducing the burden of mental disorders and improving overall well-being in these nations.

Mental Disorder Common Symptoms

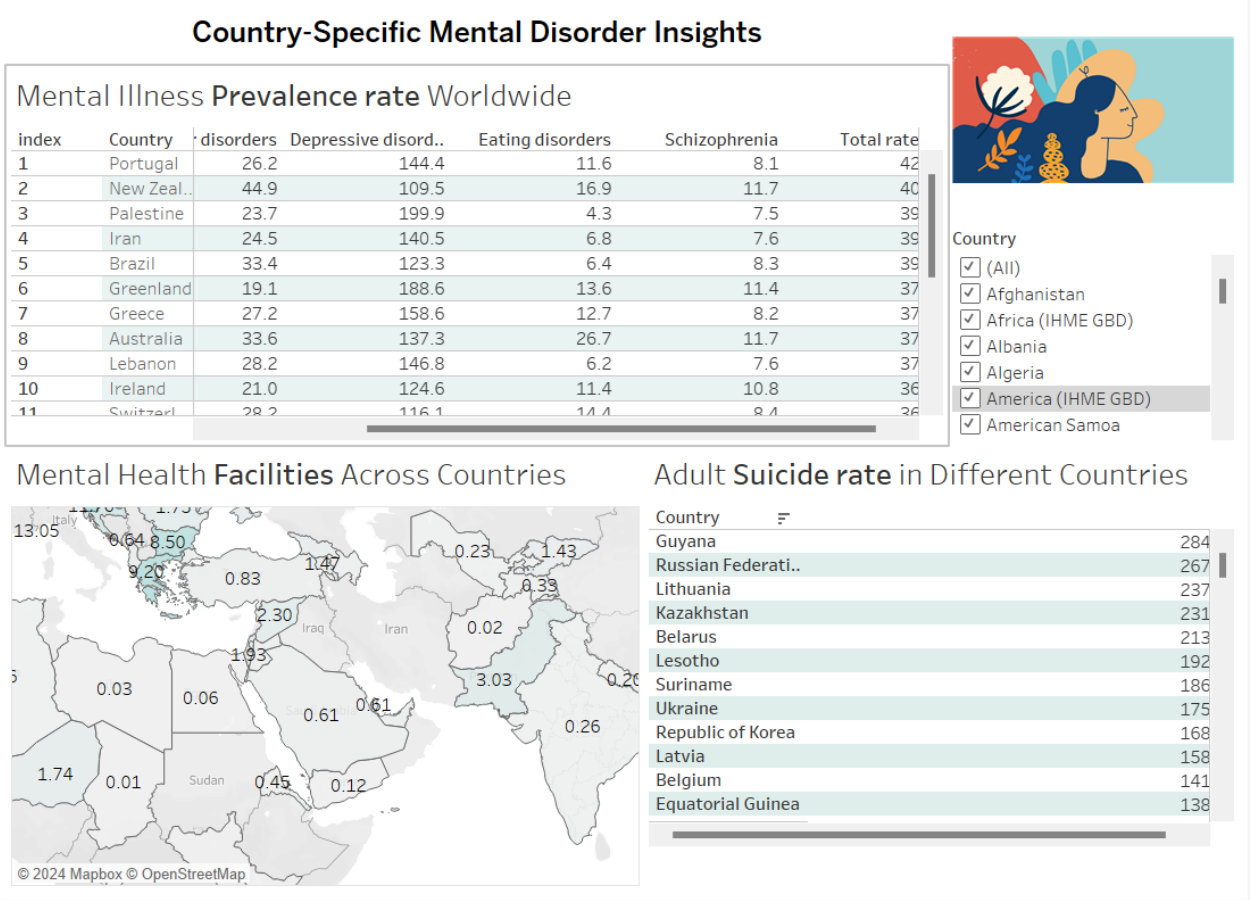


The two bar charts depict the percentage of individuals experiencing symptoms across nine different categories and the percentage of individuals reporting no symptoms at all. Surprisingly, approximately 70% of individuals report no symptoms across all categories, while the remaining 30% report symptoms to varying degrees. Notably, low energy is the only symptom where the percentage of individuals reporting symptoms exceeds those reporting no symptoms.

The findings suggest a potential discrepancy between reported symptoms and underlying mental health conditions, with a significant proportion of individuals experiencing no symptoms despite potential mental health issues. This raises intriguing questions about individuals' awareness and acknowledgment of their mental health status. It is possible that some individuals may have undiagnosed or subclinical mental health disorders, leading them to seek treatment despite not experiencing noticeable symptoms. Further research is warranted to explore this possibility and its implications for mental health assessment and intervention strategies. Additionally, the prevalence of low energy as the most reported symptom highlights the importance of considering symptom severity and distress levels in mental health evaluations.

DASHBOARDS

1.



This dashboard provides insights into country-specific mental health data across three key metrics. The first chart displays the prevalence rates of mental illness in various countries, offering an overview of the burden of mental health disorders globally. The second chart highlights the distribution of mental health facilities across countries, shedding light on access to mental health services. Lastly, the third chart presents adult suicide rates in different countries, offering important insights into mental health outcomes and potential areas for intervention. Together, these charts offer valuable insights into the state of mental health across different regions, facilitating informed decision-making and resource allocation in mental health policy and practice.

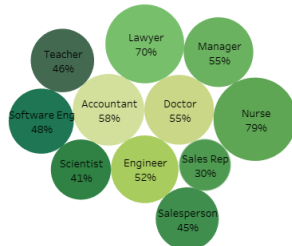
2.

Exploring Mental Well-being Across Professions

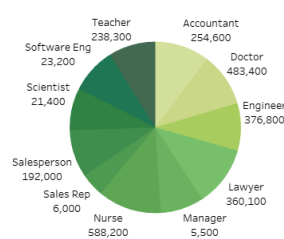
Understanding the Impact of Occupation on Mental Health Factors



Average Physical Activity



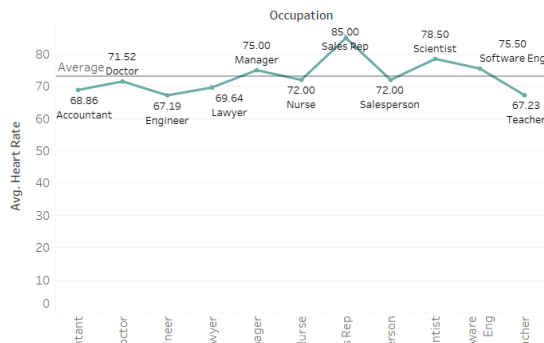
Average Daily steps



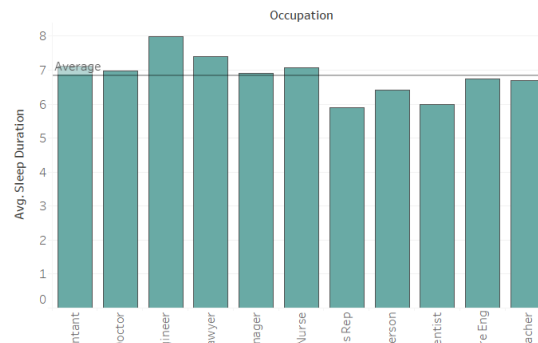
Average Stress Level (Out of 10)

Occupation	Average Stress Level (Out of 10)
Accountant	4.6
Doctor	6.7
Engineer	3.9
Lawyer	5.1
Manager	5.0
Nurse	5.5
Sales Rep	8.0
Salesperson	7.0
Scientist	7.0
Software Eng	6.0
Teacher	4.5

Average Heart Rate



Average Sleep Duration

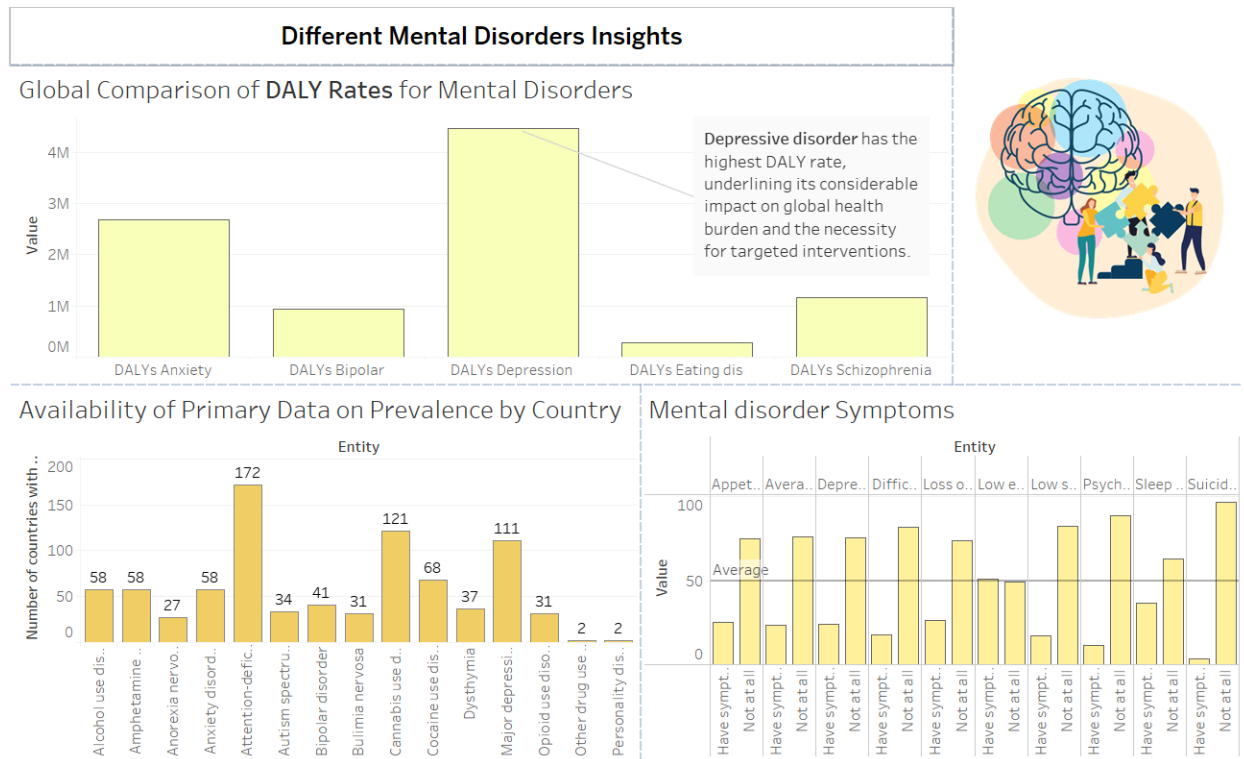


This dashboard provides insights into the relationship between main occupations and various health metrics, including average physical activity, daily stress levels, sleep duration, heart rate, and daily steps. By comparing these metrics across different professions such as lawyers, managers, nurses, doctors, and teachers, users can gain valuable insights into the health and well-being of individuals in various occupational fields. Understanding these factors is crucial as they are closely linked to mental health outcomes.

For example, professions with high levels of stress or long working hours may be associated with higher rates of mental health disorders such as anxiety and depression. Similarly, occupations that require irregular or insufficient sleep may contribute to increased stress levels and poorer mental health outcomes. By examining the relationship between occupational factors and health metrics, stakeholders can identify potential risk factors for mental health disorders and implement targeted interventions to support the well-being of individuals in these professions.

Overall, this dashboard serves as a valuable tool for understanding the intersection between occupational factors, health metrics, and mental health outcomes, facilitating informed decision-making and resource allocation in mental health promotion and prevention efforts.

3.



Explore diverse insights into mental health across global populations with this dashboard. Compare the burden of mental disorders worldwide through the DALYs rate chart, understand prevalent symptoms experienced by individuals, and assess the availability of primary data on mental disorder prevalence. Together, these charts offer a comprehensive overview of the current landscape of mental health, aiding in informed decision-making and resource allocation for mental health initiatives.

CONCLUSION

In conclusion, mental health disorders differ from physical sickness in that they may not exhibit obvious symptoms, and there's a lack of mental health facilities globally. Societies must pay more attention to mental health to keep suicide rates lower and ensure better access to treatment. Addressing mental health disparities and improving access to treatment must be prioritized to improve overall mental health outcomes worldwide.

DICTIONARY

- **Dysthymia:** Dysthymia is a milder, but long-lasting form of depression. It's also called persistent depressive disorder. People with this condition may also have bouts of major depression at times.
- **(DALY) rate:** DALY stands for Disability-Adjusted Life Year. It's a measure used to quantify the burden of disease by combining years of life lost due to premature mortality with years lived with disability. Essentially, it represents the number of years lost due to ill-health, disability, or early death, providing a comprehensive view of the impact of a disease or condition on a population's health.
- **Major Depression:** It also known as major depressive disorder (MDD), is a mental health condition characterized by persistent feelings of sadness, hopelessness, and loss of interest or pleasure in activities. It's more than just feeling sad or going through a rough patch; it's a serious mood disorder that can affect how you feel, think, and handle daily activities.
- **Potentially Adequate Treatment, Conditional:** Refers to the number of individuals who could potentially benefit from adequate treatment for mental health disorders, provided certain conditions are met. These conditions could include factors such as access to healthcare services, availability of treatment options, and willingness to seek help.
- **Other Treatments, Conditional:** Refers to the number of individuals who receive treatment for mental health disorders through alternative or non-traditional means, under certain conditions. These conditions may involve factors such as cultural or religious practices, self-help methods, or informal support networks.
- **Untreated, Conditional:** Refers to the number of individuals who do not receive any form of treatment for mental health disorders, despite potentially benefiting from it, under certain conditions. These conditions may include barriers to accessing healthcare services, stigma associated with mental illness, or lack of awareness about available treatment options.
- **Sleep apnea:** Sleep apnea is a serious sleep disorder that happens when your breathing stops and starts while you're asleep. If it goes untreated, it can cause loud snoring, daytime tiredness, or more serious problems like heart trouble or high blood pressure.

DATA SOURCES

- <https://data.world/vizzup/mental-health-depression-disorder-data>
- <https://www.kaggle.com/code/shariful07/student-mental-health-data-analysis#Reading-the-Dataset>
- <https://www.kaggle.com/datasets/shariful07/student-mental-health>
- <https://www.kaggle.com/datasets/imtkaggleteam/mental-health>
- <https://www.kaggle.com/datasets/twinkle0705/mental-health-and-suicide-rates>
- <https://kaggle.com/datasets/amirhoseinmousavian/mental-health>
- <https://www.kaggle.com/datasets/divaniazzahra/mental-health-dataset?resource=download>
- ...