

Data Visualization about Mental Health Disorder in the Tech industry from 2019 to 2021

Lingjia Kang

Abstract:

This data analytics report delves into the state of mental health in the tech industry from 2019 to 2021, with the target audience being individuals and psychologists employed in the technology sector. The analysis is based on a dataset from Open Source Mental Illness (OSMI), encompassing over 600 responses to a mental health survey tailored to tech industry employees, and the methodology is exploratory research by utilizing the secondary data source. Tableau will display the final visualization result.

Keywords: Mental Health, Technology Industry, Data Analytics, Data Visualization, Tableau

Target audience:

People who worked in the technology industry and psychologists.

Data Description:

This report visualized the Open Source Mental Illness (OSMI) dataset and analyzed the answers to mental health in the tech industry survey from 2019 to 2021. The organization has collected over 600 samples in total, and the survey also included various questions about mental health disorder issues of the employees in the tech industry.

· Introduction:

This report included three different insights about the data and three other questions. The answer is shown on the chart.

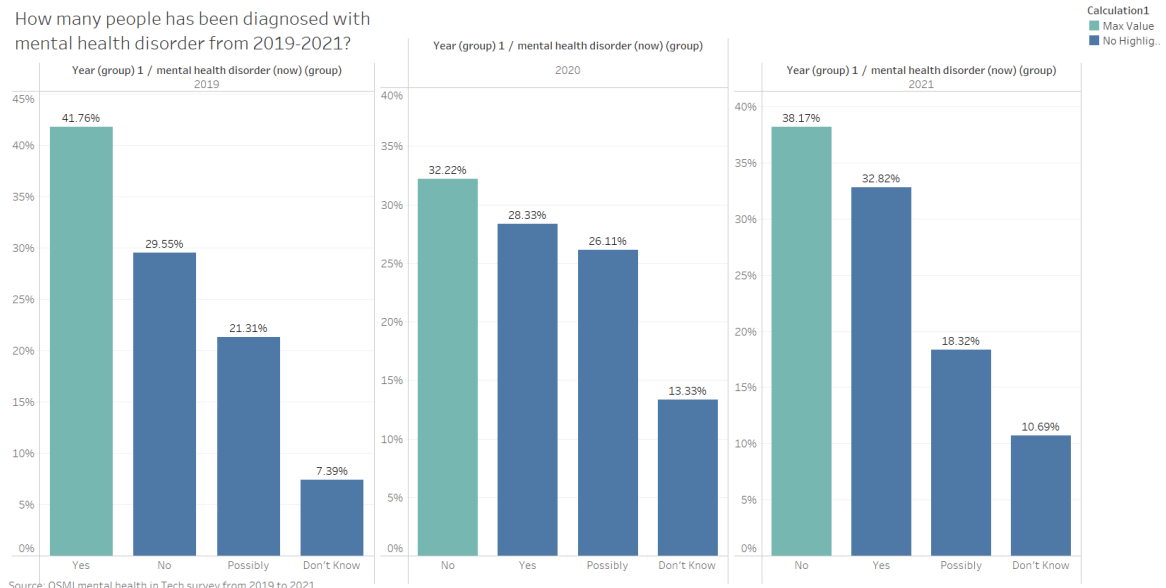
Aim:

Analyzing the general mental health information of the technology industry in the recent three years and thinking about the potential solutions to improve mental health disorder issues.

Data preparation:

Download the three datasets from 3 different years and combine them into one as the only database I used within this report. Besides that, since the entire survey had so many questions, including previous employees and textual descriptions, these parts were deleted since they were irrelevant to the three insights listed below.

First insight: general situation about mental health disorders, the percentage of people diagnosed with the disease.



The first insight aims to discover the general situation regarding mental health diagnosis rates in the technology industry. The basic data can deliver some information about year-to-year trends, whether the technology industry is high-pressure, etc.

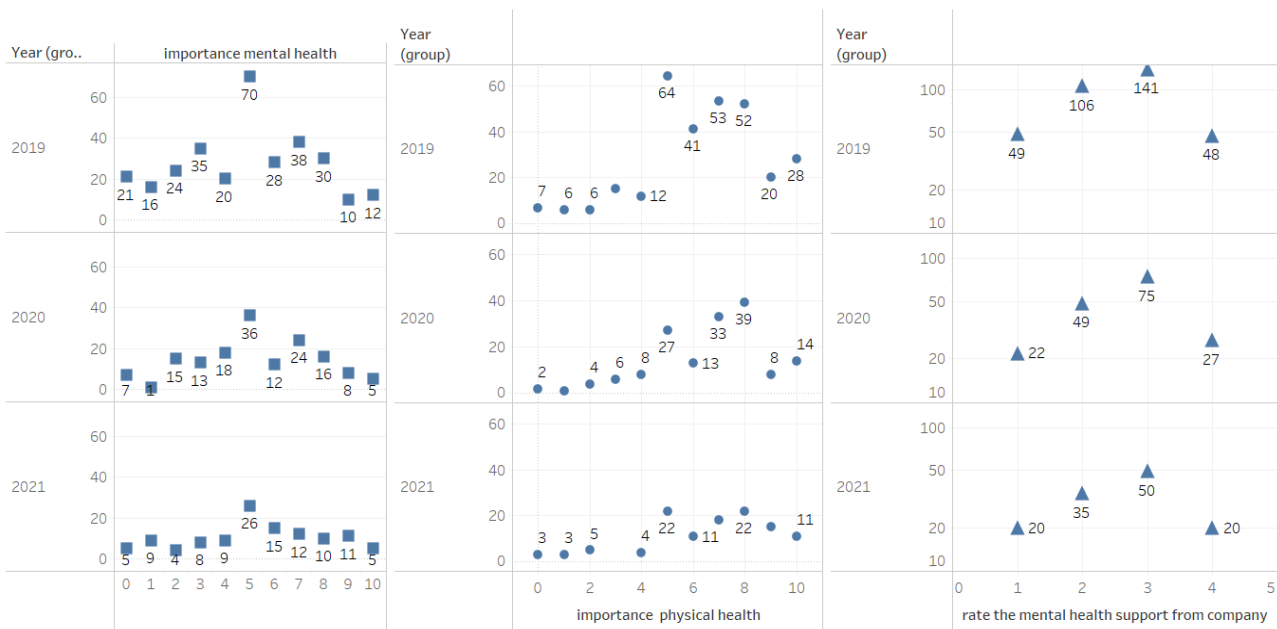
It is a series of bar charts about whether employees have been diagnosed with mental health disorders from 2019 to 2021. Due to the number of samples each year being different, the graph used a percentage of the total to illustrate the rank of other answers. In 2019, 41% of the employees were diagnosed with mental health disorders, which ranked first. Even though the percentage dropped somehow in the following two years, the total percentage of ‘possibly yes’ and ‘yes’ for mental health disorders was

still more than half of the total. The information we can acquire there is that the tech industry has a comparatively high number of people who have mental health disorder issues. Through other data in the dataset, most of the mental health issues were Mood Disorders and Anxiety.

Insight 2: In this part, the insight was about company strategy and the attitude of employees. The question was, “How do employees rate their company’s mental health policy?”

This part aims to understand employees’ attitudes toward their company, and we can understand whether employees are satisfied with their company’s health policy; it could be further analyzed to discover the relationship between the employer and employees’ mental health.

How employee rate their company’s policy about health?



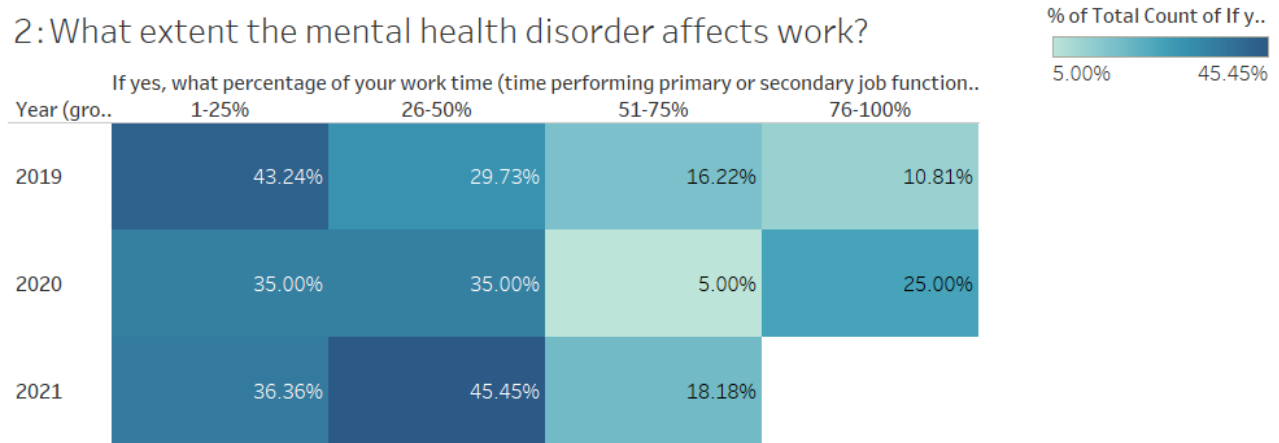
Source: OSMI mental health in Tech survey from 2019 to 2021

For this section, I chose some essential questions (How much importance do you think the employer put on your physical and mental health?) to visualize the data and answer the question. The circle view allows me to display the data distribution situation about the employees’ marks and attitudes in different years. They have a similar distribution among the charts for the importance of mental health support. We can conclude that most of the people mark their company as five while the full mark is 10; a similar result could be seen for the mark distribution for the employee’s rate of mental health support they receive from the company, and the majority of people ranked three

while the full mark is 5. However, the physical health mark distribution is better than the other two questions as more people ranked higher scores for their organizations. Hence, companies may enhance their health welfare regarding mental health aspects.

Insight 3: After understanding the general mental health disorder percentage and the mental health support they received from companies, the third insight will be more related to the influence of mental health issues, especially about work productivity. Therefore, it could be essential proof to convince organizations or employers to pay more attention to mental health.

2: What extent the mental health disorder affects work?



Source: OSMI mental health in Tech survey from 2019 to 2021

For the last insight, the influence that is caused by mental health disorders will be discovered. I chose the question, ‘Do you ever believe that your productivity is affected by mental health disorder?’ and the answers had four intervals of percentage representing the extent to which mental health issues affect work productivity. (1%-25%, 26%-50%, 51% -75%, 76%-100% and the highlight tables are applied there to answer the question. In 2019, nearly half of the data samples only be affected by mental health issues in a relatively low range (1%-25%). However, in 2021, the first place came in the range of 26% -50 %, mainly affecting employees’ productivity. Another interesting data shows that no one was highly affected by mental health disorders in 2021. But another possible factor was that the OSMI did not have too many samples in 2021.

Insufficient during research:

The samples of each year are different. For example, there are more than 300 samples in 2019 and more than 100

samples in 2021, which means that the data samples may not be sufficient to support further analysis. Besides that, most of the employees surveyed are based in the United States, while the surveys’ scope should be global.

Design principles:

All the charts applied the same style of font and color while also having high contrast to make sure they were all printable and readable for all audiences. A clear annotation could be found to display the number of percentages more straightforwardly among all the charts.

Conclusion:

Employees in the Tech industry have been diagnosed with mental health disorders, and their company deed provided some help. Still, it would be better if the company could provide more help on mental health and pay more attention to mental health disorders of employees since it has a certain level of effect on work productivity.