

AN INSIGHT REPORT OF

MENTAL HEALTH ILLNESS AT WORKPLACE

IFN619 Data Analytics for Strategic Decision Makers
Assignment 2 – Insight Report
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EXECUTIVE SUMMARY

Mental health and well-being allow an individual to deal with any situation at a personal or professional front. Ensuring mental well-being at workplaces is essential for the employees, their employers, the business and the society. Poor mental health affects an employee's workplace productivity and eventually affects the company as well. The employers play a key role in supporting their employees' mental health and well-being.

The report provides an insight into the data analysis of the mental health data at an employer level. It describes the analytical approach with visualizations. It encompasses the insights gained after analysing the variation in mental health illness and attitudes towards it by geographic location and the employee attitudes to mental health at workplace along with its predictors.

Further, the report highlights the ethical considerations associated with data, data quality and data analysis. The probable, practical solutions are also included in the report along with the consequences that may occur if we fail to implement these solutions.

The importance of workplace mental health and wellbeing are discussed in the report. The report is a call to action and a guide on how to improve the workplace culture for the employees. It acts as the foundation to the decisions the employers need to take to create an open, supportive culture where employees feel free to talk about their mental health illness and gain awareness about the benefits they are entitled to.

IMPORTANCE OF MENTAL WELL-BEING

Mental health well-being is the key to live, to function effectively- both personally and professionally. In recent years, the world has seen an increase in the number of mental health related cases. This is an issue of major concern. Awareness of the importance of good workplace mental wellbeing to the owners of the organizations is an essential part of their moral and societal responsibilities and for business growth. It is important to address the difficulties faced by individuals suffering from mental illness at workplaces, to cooperate and provide comfortable working environments and support them to cope up. Moreover, employers play a key role in the mental wellbeing of an employee.

PURPOSE OF ANALYSIS AND THE ASSOCIATED STAKEHOLDERS

Our purpose is to gain insights into the frequency of mental health issues and the attitude towards it by geographic locations. We also focus on the attitudes of people and the predictors of the illness at workplace, the factors that contribute to the mental instability in an employee. The stakeholders that can benefit from this analysis are:

- Employers of organizations
- Individuals in the workforce
- Policy makers
- Health practitioners
- Carers
- Ministry of Health
- Healthcare Analysts

PURPOSE OF THE ANALYSIS FOR THE EMPLOYERS

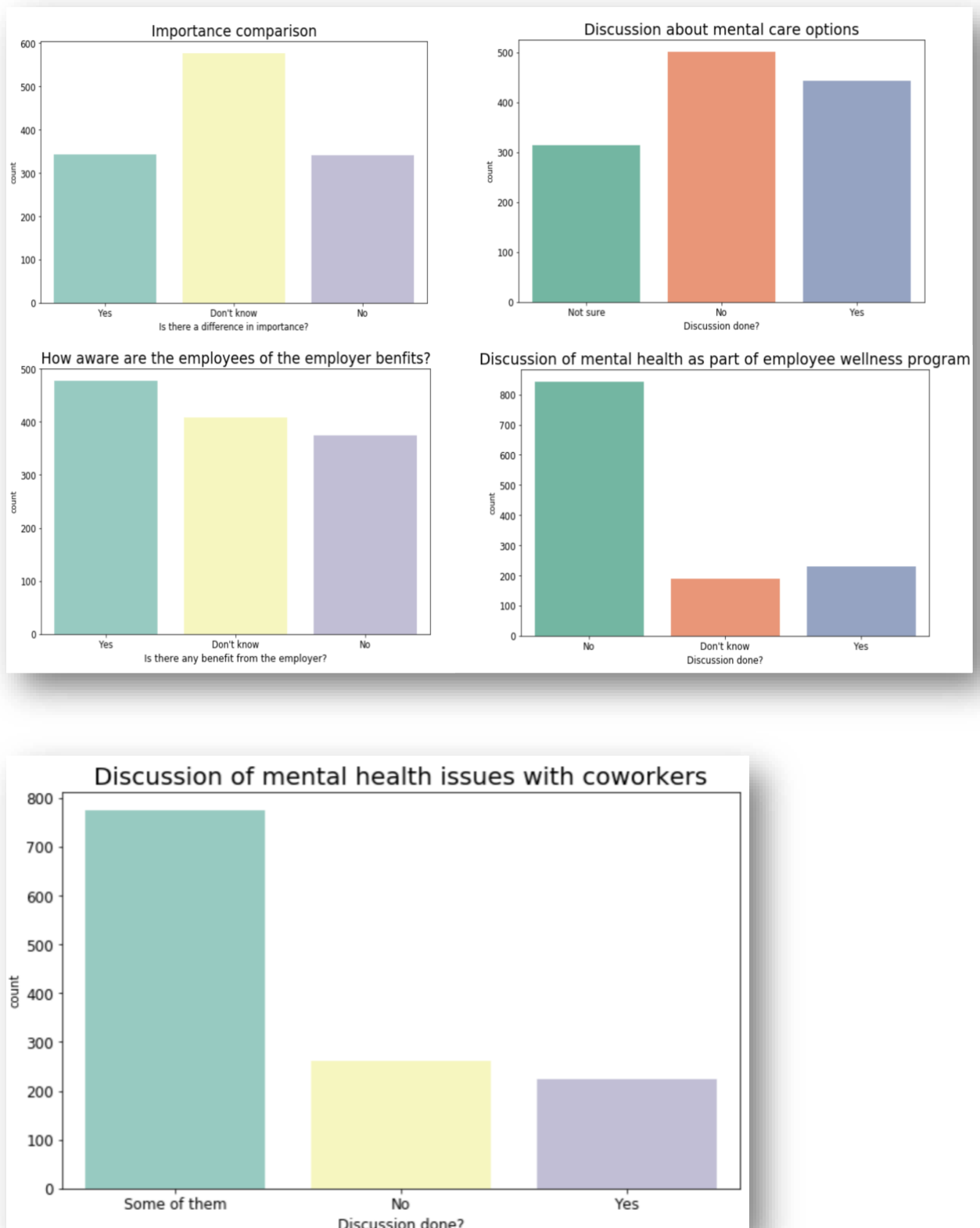
The stakeholders i.e. the employers will be interested in the latter part of the analysis where they would get more information about the awareness the employees have about the benefits they provide, how safe do they feel to talk about their issues and get to know more about their side of the problems. Insights from this data analytics project will help them improve their role in supporting employees' mental state and well-being and overcome the barriers that currently exist. Moreover, employees perform better when they are mentally well, which depends on how they feel at work, how they are supported and valued.

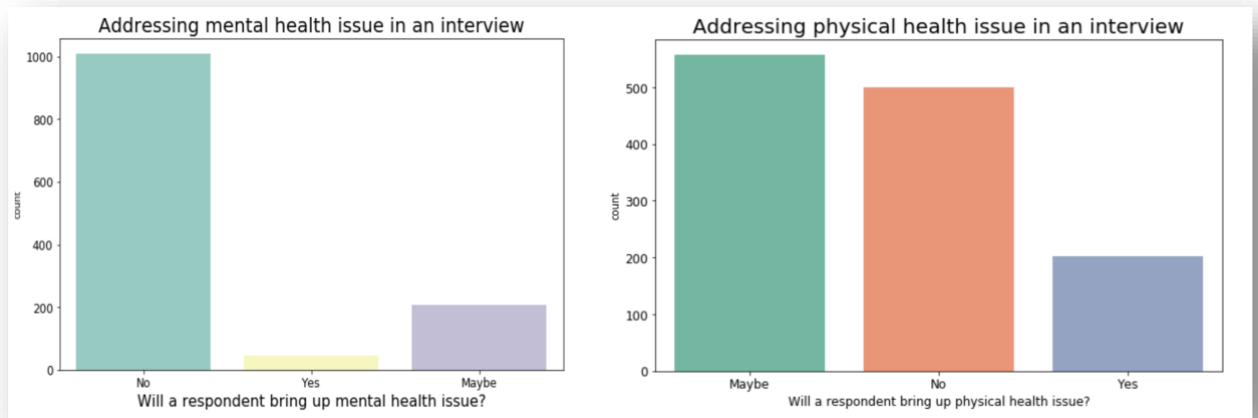
DATA AND THE ANALYTICAL APPROACH

This business concern was addressed by doing a detailed analysis on the data collected from a 2014 survey, conducted by Open Sourcing Mental Illness (OSMI), with 1259 respondents from different parts of the world answering questions related to and surrounded by mental health illness, giving personal information, talking about people's perception, their own struggle of dealing with it, workplace reactions to the illness and more. This data is useful for the purpose as it revolves around the factors (i.e. the questions asked are) relevant to our research area. However, the data excludes information on the income level, employment status and education background of the respondent.

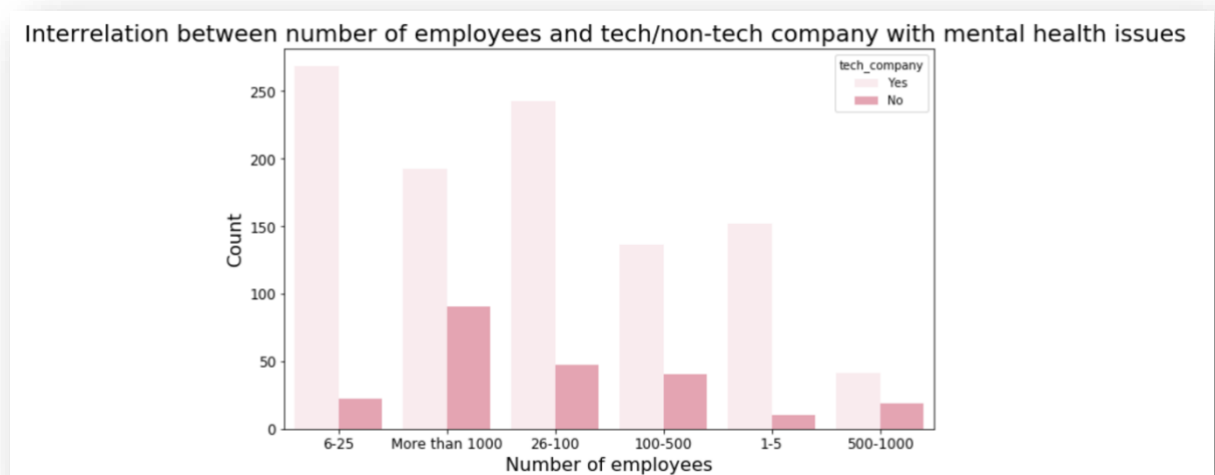
The analysis done was simple analysis focusing on the four key points with the visualization is in the form of bar graphs.

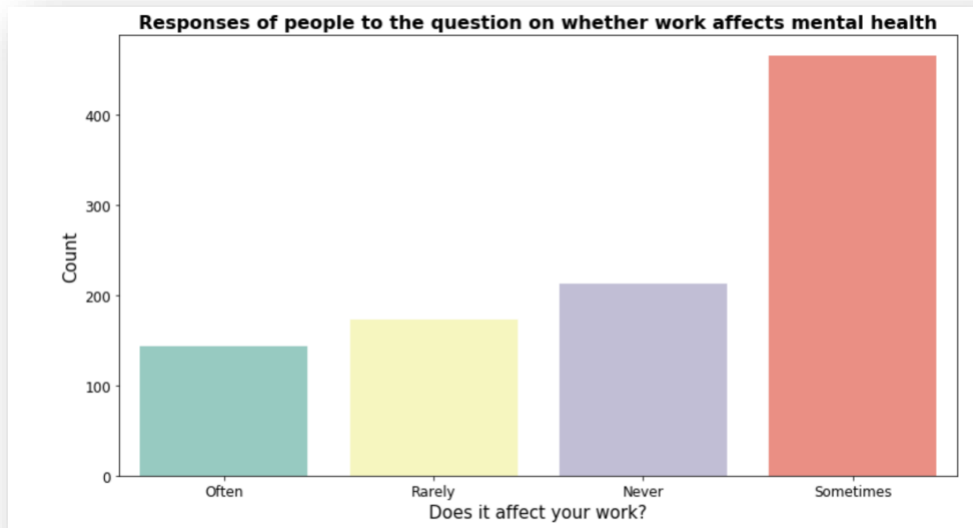
1. Frequency of mental health illness by geographical location:
Evaluating the number of cases in each country and extracting the 20 countries with the highest number of mental health cases
2. Attitude towards mental health illness by geographical location:
Viewing whether the respondent had sought treatment for the illness or not in each country.
3. Attitude towards mental health illness at workplace:
Focusing on the variables giving information on the awareness amongst employees about the employer benefits for the illness, the mental health care options the employer provides, ability to discuss about the illness with co-workers, do the employers discuss mental issues as part of employee wellness program, is mental health issue given equal importance as given to physical health issue, and on factors to dig deeper to know the attitude of the employees – how comfortable employees feel to bring mental health issues in an interview as compared to physical health issues.





4. Strongest predictors of mental health illness:
 By focusing on whether mental health affects their working efficiency and whether the type of organization they are working in affects their mental state with respect to the amount of staff in their organization.





INFORMATIVE INSIGHTS FROM THE ANALYSIS

The insights gained from the analysis of the mental health data are as follows:

- Out of the total 1259 respondents of the survey, 751 cases are observed in the United States constituting about 59.65%, followed by United Kingdom with 14.69% (185 cases).
- Attitudes towards mental health illness varies by geographical location. Number of employees seeking treatment are slightly higher than the ones who don't in the United States. Whereas, the numbers are same in Canada and United Kingdom. However, in Netherlands and Germany, more respondents have answered "no" for this question related to treatment. For the former, the difference is minute, whereas, for the latter, it is insignificant. Same can be observed for India, where the yellow graph is longer than the green graph indicating more no's . Hence, governments and companies should focus on awareness development programs and in decreasing the stigma it invokes and encourage people to take medical assistance.
- Poor mental health impacts an individual's workplace productivity. Maintaining records of employee performance can help in the early identification of the problem, if any.
- Frequency of cases in tech companies are very high in comparison to that of non-tech companies irrespective of the workforce of the organisation. This clearly indicates that employers of tech companies need to tackle the root causes to decrease these numbers.
- 32.4% of the employees are unsure about the employer benefits and 29.7% are completely unaware about it. Employers need to increase the employee knowledge about the available mental health support services they are entitled to.

- 66.87% of the workforce said that mental health wasn't discussed in the employee wellness programs. Employers need to open up conversations around mental health and well-being and the health care options available.
- Many employees would proactively approach some of their co-workers to discuss their mental health illness. However, employers can work more into creating a culture where the employees can openly talk about it with any of their colleagues.
- Employees do not feel comfortable in bringing up their mental issues in an interview with an employer. The stigma that surrounds this issue needs to be curbed to allow open discussions and revelations.
- It is the employer's responsibility to create a culture of awareness and support for mental health illness in workspaces.

LEARNING FOR THE EMPLOYERS

This data analytics project will be highly beneficial to the employers of the organizations and will impact future decision making in the organizations. The employers are responsible for the functioning of the company and the employees adhere to the set of rules and regulations set by them.

They play a key role in supporting the employees' mental state and well-being.

This project brings forward the issues faced by the mental health sufferers, their insecurities and their points of concern related to the workplace environment. It helps identify the areas that have been previously neglected, hence need attention and improvement to maintain respect, care and concern that employees deserve. This project will help inform employers about the barriers of their support services and will provide them with solutions to their current challenges in supporting mental well-being of employees.

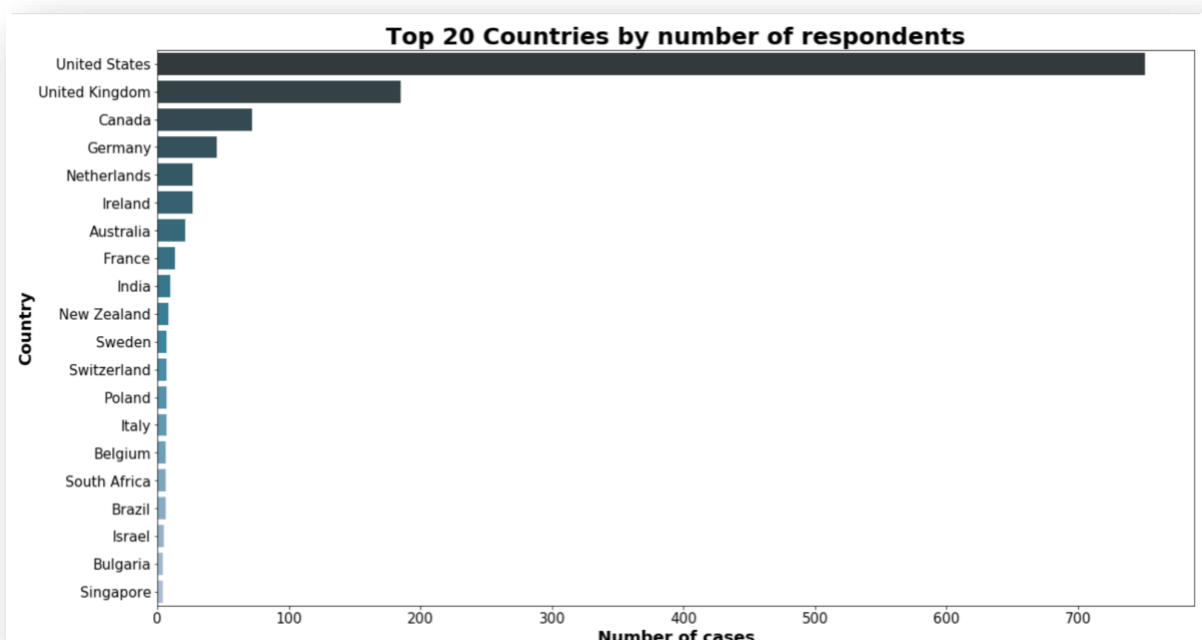
The analysis and the insights generated will help the employers in their practices. Some of them are revising their portfolios of investment, encouraging flexible working hours and peer support, providing supportive and open culture that enables the employees to access the support services and feel secure to talk about it, changes in the policies to tackle root causes of work related mental health issues and in favour of mental well-being of employees, provision of counsellor assistance and awareness workshops to break down the stigma it beholds.

ETHICAL CONSIDERATIONS

Regional Bias

- During data exploration, it was observed that most respondents of the survey were based in the United States.
- This creates a location bias that may result in misleading conclusions. The insights gained from the analysis are largely skewed by factors in the US workplace and may not necessarily be true for the remaining countries.
- False assumptions in other regions may lead to improper decision making without considering specific factors.
- Misjudgement of risk (needs) as the true problems of mental health in the region are not portrayed, and eventually the actions taken can also be inappropriate and not useful for the employees.

The visualization below shows the regional bias the data beholds.



Lack of value-adding measures

- Variables such as income, unemployment status and educational background of individuals were not considered in the questionnaire in the survey.
- Lack of such factors is an issue as they can be the potential predictors of mental health illness and would not end up in the decisions made by the employers.
- Inappropriate data selection may impact the policy related decisions taken by the employer in support of the employees.

Negligence in inspecting the strongest predictor

- The data analysis has narrowly escaped the emphasis the question had about the “strongest predictor” of mental health illness in workplaces. It provides the predictors but excludes the comparison needed to evaluate the strongest one.

- This inappropriate analysis technique is an issue as it does not help the employer gain information on the strongest predictor to make his decisions.
- The flawed analysis will be of no use as the employer would not get clear information on the area that needs maximum attention to prevent increasing cases of mental health.

Overlooking critical elements from the data

- The data analysis does not consider variables such as provision of resources to understand and seek help from the employer, anonymity protection, ease of medical leaves from employers, consequences of discussing about mental health issues or observing negative consequences in similar cases.
- Inappropriate application of variable selection is an issue as other important indicative variables are excluded, leading to poorly developed insights.
- This flawed analysis will impact the employees as well as the new decisions would still not address their insecurities since those issues were not considered in the analysis itself.
- The employers would be barred from getting clear picture of the situation and hence would affect the policy making of the organization.

Negligence of the gender variable in the analysis

- The analysis done does not consider the gender of the respondents.
- This information would help us understand whether illnesses are prone to any particular gender or not. Its absence in the analysis affects the insights and thus the policy making by the employers.

Verifying the quality of data

- The collected data does not have clear variable names, for example, “seek_help” could have been “provision of resources”.
- The “gender” column is unorganized in a way that before analysing it needs data correction. False assumptions done during the analysis might impact the insights.

Alternative representations

All the visualizations in the analysis are in the form of bar graphs which could have been replaced by pie charts or any other form of chart. Misleading visualization can impact the understanding and eventually the decision making of the employers.

Advanced analytics

The evaluation of data done is based on simple analysis. More advanced techniques could have been used to drive deeper insights.

PRINCIPLES

Bias awareness

- We need to improve the data collection process to avoid over-representation of any particular country by conducting surveys in individual countries and then combine all the data collected for a detailed analysis.
- Focus should be on diverse data that represents information from all regions in the world proportionally to be able to gain unbiased results.

Data quality/Additional collection of comprehensive data

Ensuring that the data collected contains all the potential considerations that might impact the insights and thus the decision making of the employers.

Multiple analysts

- Multiple analysts can be independently asked to work on the same dataset with the intention of finding answers to the same questions to be able to get the right insights.
- Involving different individuals and agencies for the same purpose would help in getting the strongest predictor and improve the workspace environment.
- This would also help us solve the issue of overlooked critical elements in the dataset, misleading visualizations and negligence of the gender column.
- It would also help in getting deeper insights through the use of advanced analytical techniques.

Utilising of existing data more effectively

All the variables from the existing data need to be evaluated to reach to a valid, accurate conclusion.

Consistency in survey responses

In order to minimize assumptions, where possible, question responses need to be chosen from a list of options. For example, the response to “Gender” can be put into a list with n number of options to choose from, this will not only reduce work during data cleaning and correction but also provide more accurate insights.

CONSEQUENCES

- If bias awareness is not accounted for, the insights from the data analysis would be skewed and inappropriate for employers all round the world. Adopting wrong insights may lead to wrong decisions which would neither be beneficial for the employees nor the employers.
- Missing of all the potential factors from the data would lead to a limited analysis and insights and hence would lack the quality of positive impact the decisions might have. Employees might not receive the type of support they are in need of.
- The false assumptions that come with the inconsistent responses may again degrade the quality of analysis and the insights gained which further affects the decision making of the employers.
- Lack of efforts by employers in improvising the workplace environment, prioritizing mental health and wellbeing then before to move towards a culture that proactively manages mental wellbeing could escalate an employee's mental issues, weaken his will power and self-esteem because of constant inferiority complex. Absence of positive, cooperative working environment may impact the working efficiency of the individual and hence, indirectly, the business growth of the company.
- Employees would be the largely affected by the flawed decisions made by the employers based on the flawed insight. Employers investment into wrong sectors would be in vain and the employees won't be benefited.
- Apart from employers and the employees, the other professionals that might benefit from this evaluation are the healthcare professionals and the healthcare analysts performing analysis on mental health and related topics. The government can also form norms for the organizations that they have to adhere to.