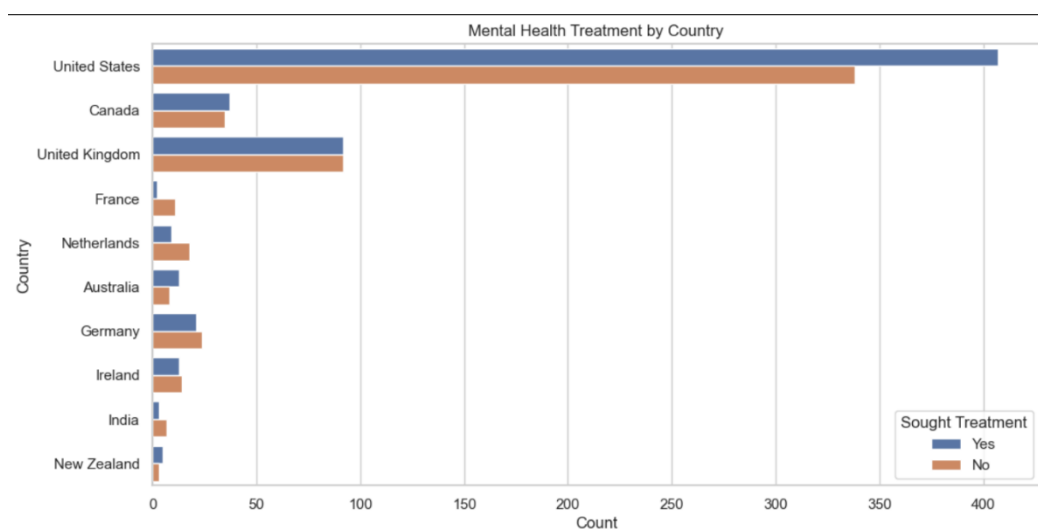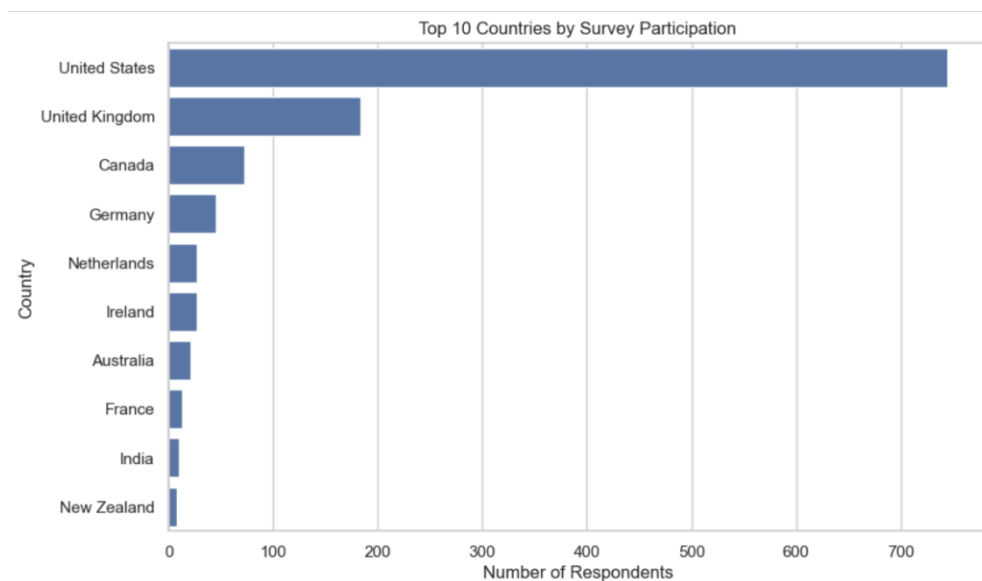# MENTAL HEALTH IN TECH

Objective:

- To analyze and understand mental health challenges in the tech industry by exploring how workplace factors and attitudes influence whether employees seek treatment.
- To analyze the prevalence, awareness, and attitudes toward mental health in the tech industry, and to identify the key factors that influence whether individuals seek treatment for mental health conditions

Question 1 - How does the frequency of mental health illness and attitudes towards mental health vary by geographic location?

Question 2 - What are the strongest predictors of mental health illness or certain attitudes towards mental health in the workplace?

Correlation Heatmap
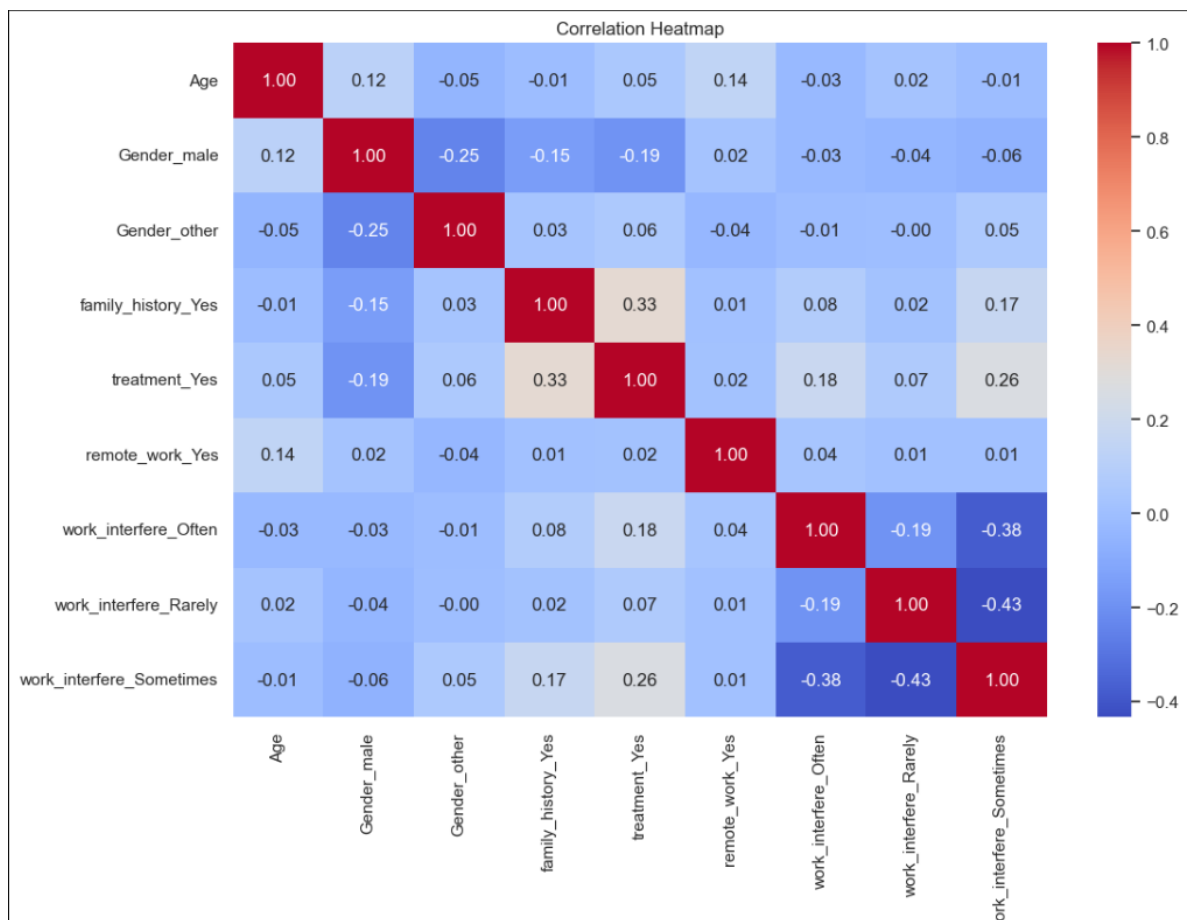

```python
# Import necessary modules for model training and evaluation
from sklearn.model_selection import train_test_split
from sklearn.ensemble import RandomForestClassifier
from sklearn.metrics import classification_report

# Select features and target for the model, and remove rows with missing values
model_df = df[['Age', 'Gender', 'family_history', 'remote_work', 'work_interfere', 'treatment']].dropna()

# Convert categorical columns to numerical using one-hot encoding
model_df = pd.get_dummies(model_df, drop_first=True)

# Define the feature set (X) and target variable (y)
X = model_df.drop('treatment_Yes', axis=1)  # all columns except 'treatment_Yes'
y = model_df['treatment_Yes']               # target: whether the person sought treatment (1 or 0)

# Split the data into training and testing sets (80% train, 20% test)
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# Create and train a Random Forest classifier on the training data
model = RandomForestClassifier(random_state=42)
model.fit(X_train, y_train)

# Use the trained model to make predictions on the test data
y_pred = model.predict(X_test)

# Print a classification report with precision, recall, f1-score, and accuracy
print(classification_report(y_test, y_pred))
```
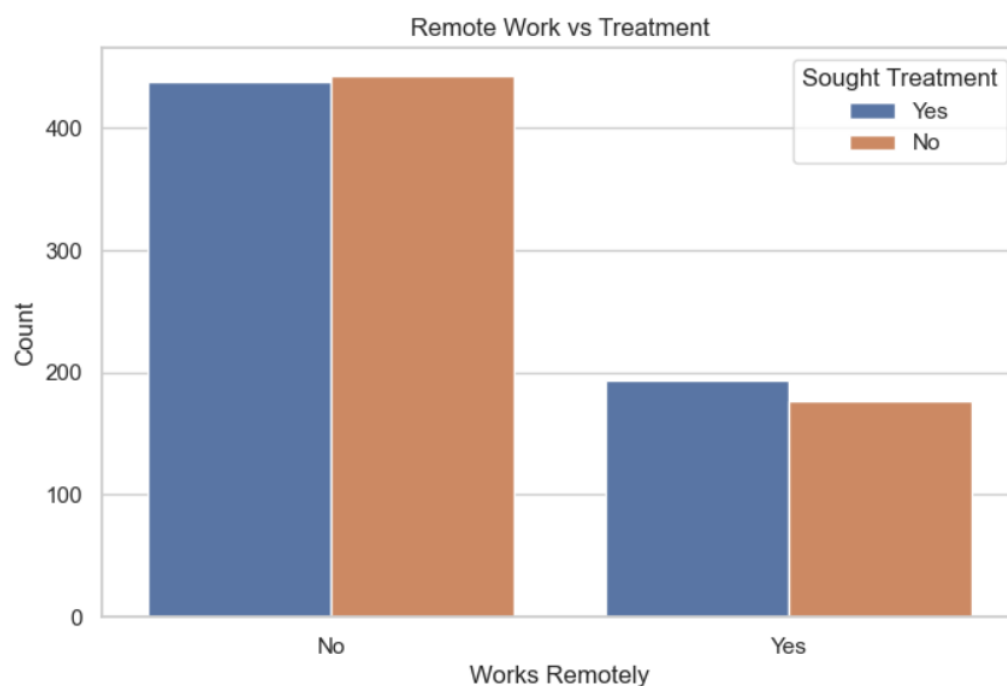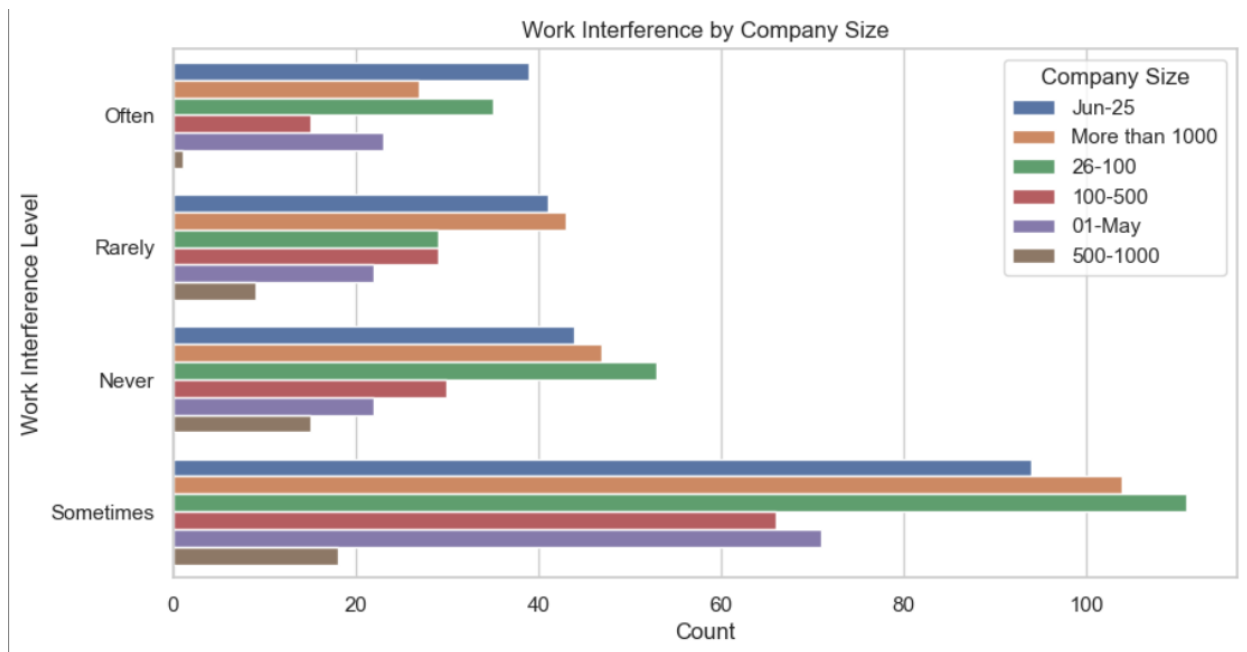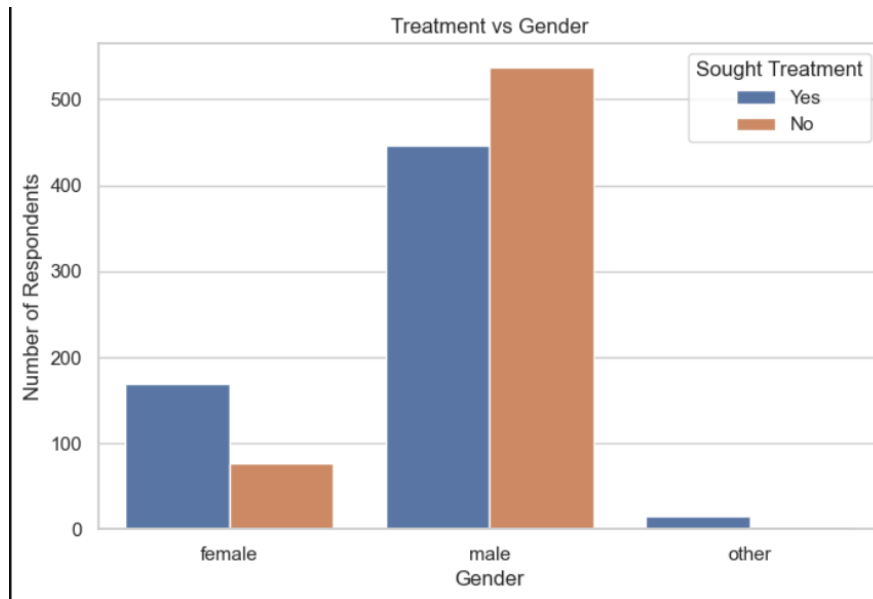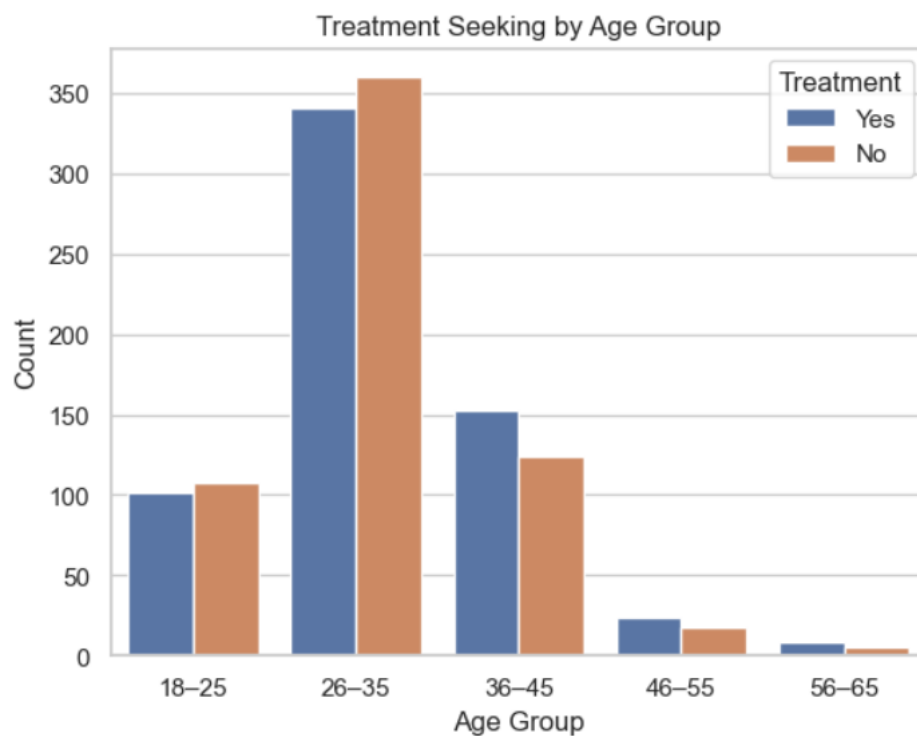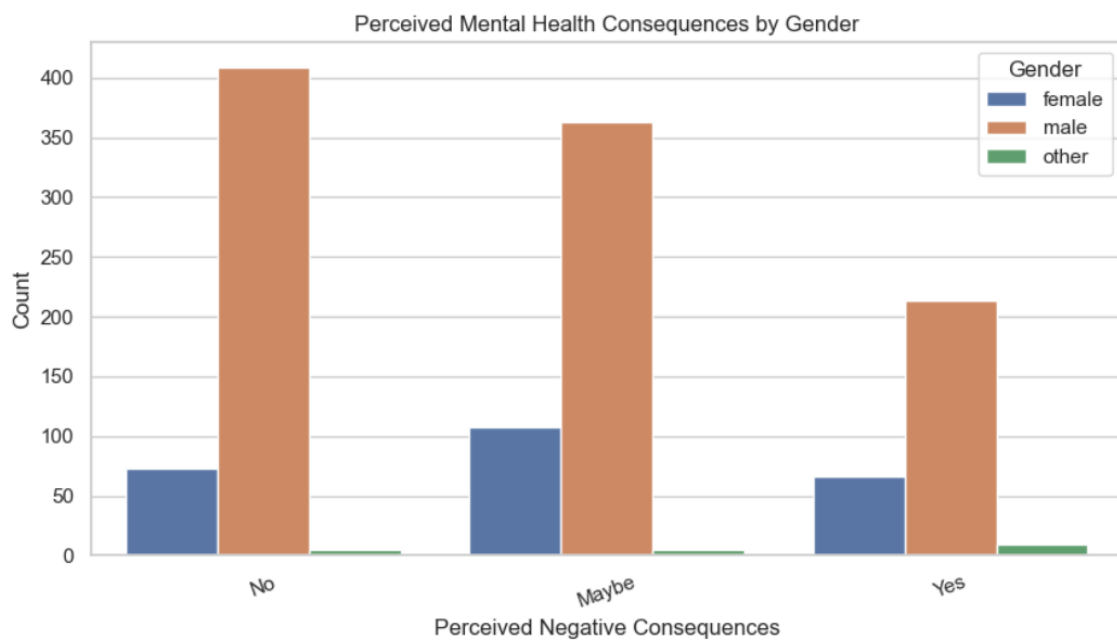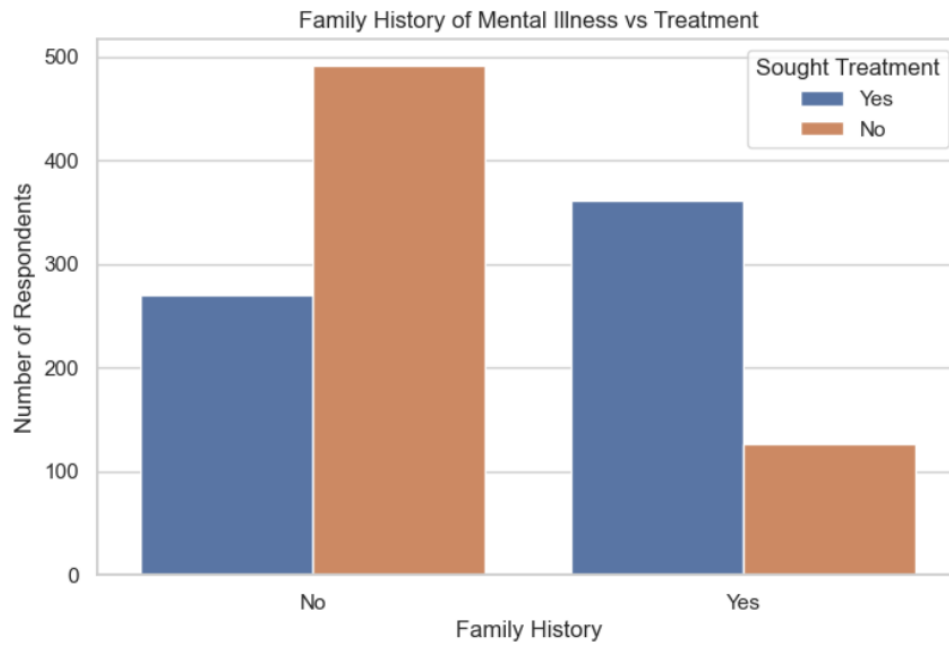
```
              precision    recall  f1-score   support

       False       0.51      0.51      0.51        65
        True       0.76      0.76      0.76       133

    accuracy                           0.68       198
   macro avg       0.63      0.63      0.63       198
weighted avg       0.68      0.68      0.68       198
```

Data Visualization:

Treatment vs Gender

Work Interference by Company Size

Remote Work vs Treatment

Family History of Mental Illness vs Treatment

Perceived Mental Health Consequences by Gender

Treatment Seeking by Age Group

Work Interference vs Treatment

Gender Distribution

Do Resources Help People Seek Treatment?

Perceived Negative Consequences by Country

Employer Mental Health Benefits vs Seeking Treatment

Wellness Program Awareness vs Willingness to Talk to Supervisor

Solutions:

1. Break the Mental Health Stigma

Talk openly about mental health like we do about physical health.

Share real stories from people who got help and improved.

Make sure employees know it's okay to not be okay.

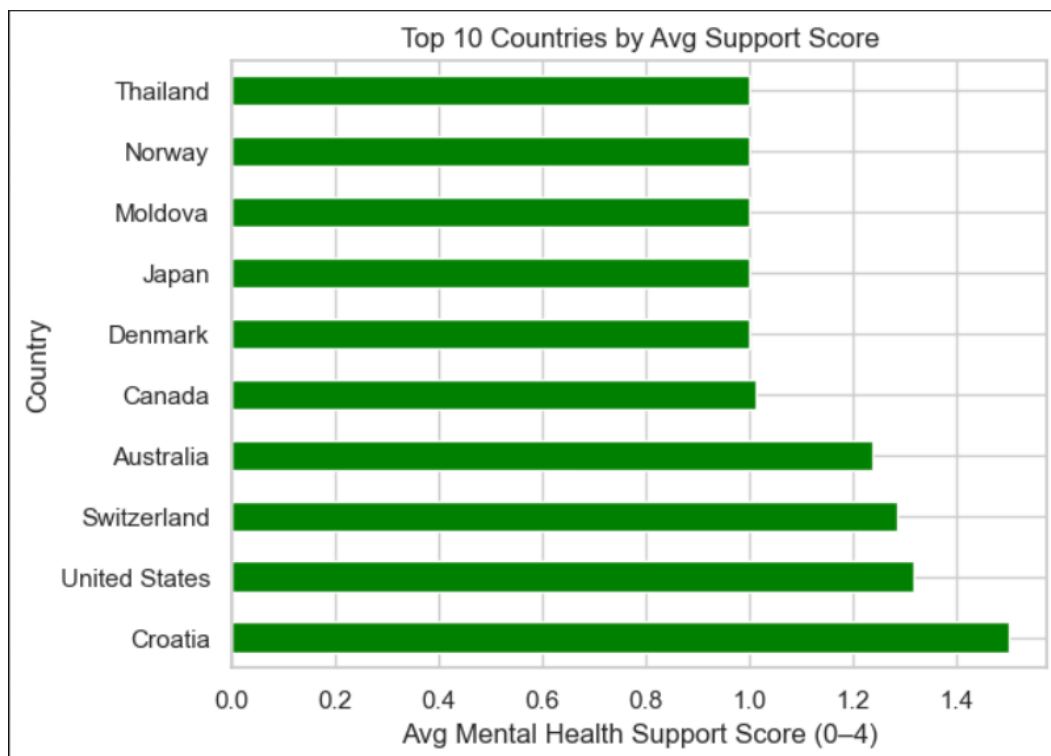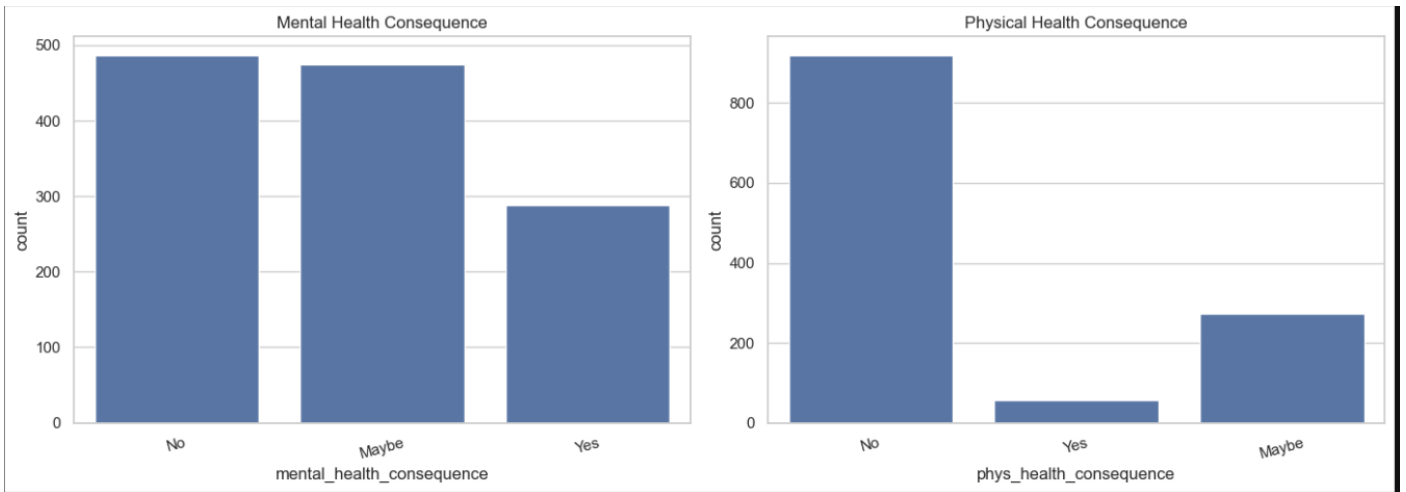### 2. Offer Mental Health Support at Work

Give access to free or discounted therapy or counseling.

Include mental health in the company's health insurance.

Run mental wellness sessions or stress-relief activities regularly.

3. Make Resources Easy to Find

Create one place (a website or internal page) where all mental health help is listed.

Send monthly reminders about available support.

Introduce mental health support during employee onboarding.

4. Train Managers to Support Their Teams

Teach managers how to listen and support employees facing mental health issues.

Let employees talk to someone else (like HR) if they're not comfortable with their manager.

Appoint friendly team members as mental health "buddies" for support.

5. Support Small Teams Too

Use free or low-cost mental health platforms if there's no in-house HR.

Copy good mental health policies from bigger companies (many are shared online).

In small companies, even simple things like the boss encouraging breaks can help a lot.

6. **Help Remote Workers Stay Connected**

Offer online therapy and support groups for remote staff.

Schedule regular one-on-one check-ins just to ask, "How are you?"

Encourage remote staff to take breaks and mental health days when needed.

7. **Make It Safe to Ask for Help**

Keep all mental health conversations private.

Don't make employees feel guilty for taking time off for mental health.

Treat mental health leave just like sick leave.

8. **Create a Supportive Company Culture**

Run awareness days or mental health weeks.

Set an example from leadership — when the boss talks about mental health, everyone feels safer.

Make mental health part of how you care for your team, not just a policy.

Conclusion:

-> Family history and work interference are the strongest predictors of whether a person seeks mental health treatment.

-> Women are more likely to report and seek treatment compared to men.

-> Remote work and company size do not significantly reduce treatment rates, but they do affect openness to discussing mental health.

-> Many respondents fear negative consequences if they disclose mental health issues at work, especially in companies without wellness programs or anonymity assurances.

-> Geographically, the majority of responses are from the US, with varying levels of support and awareness between countries.

There is a clear need for improved mental health education, anonymity, and support programs in tech workplaces to create a safer environment for employees to seek help