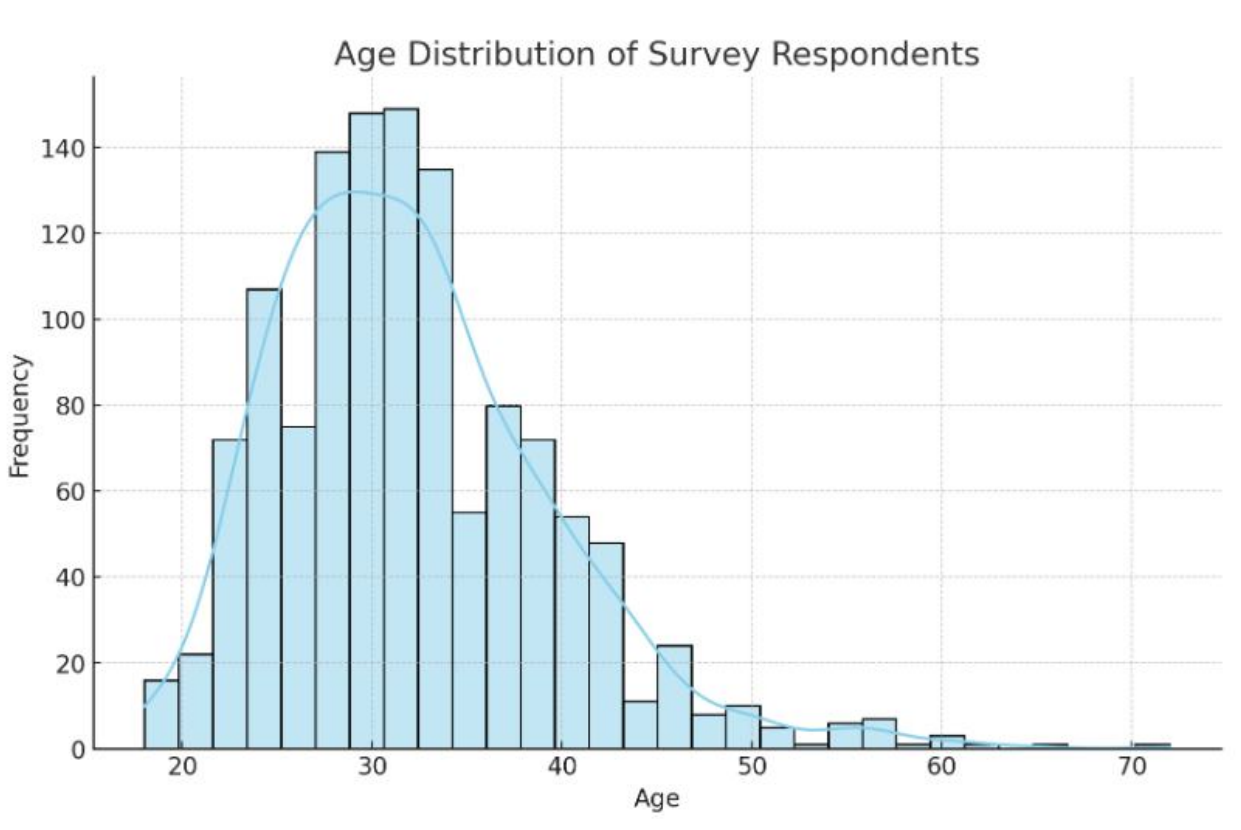
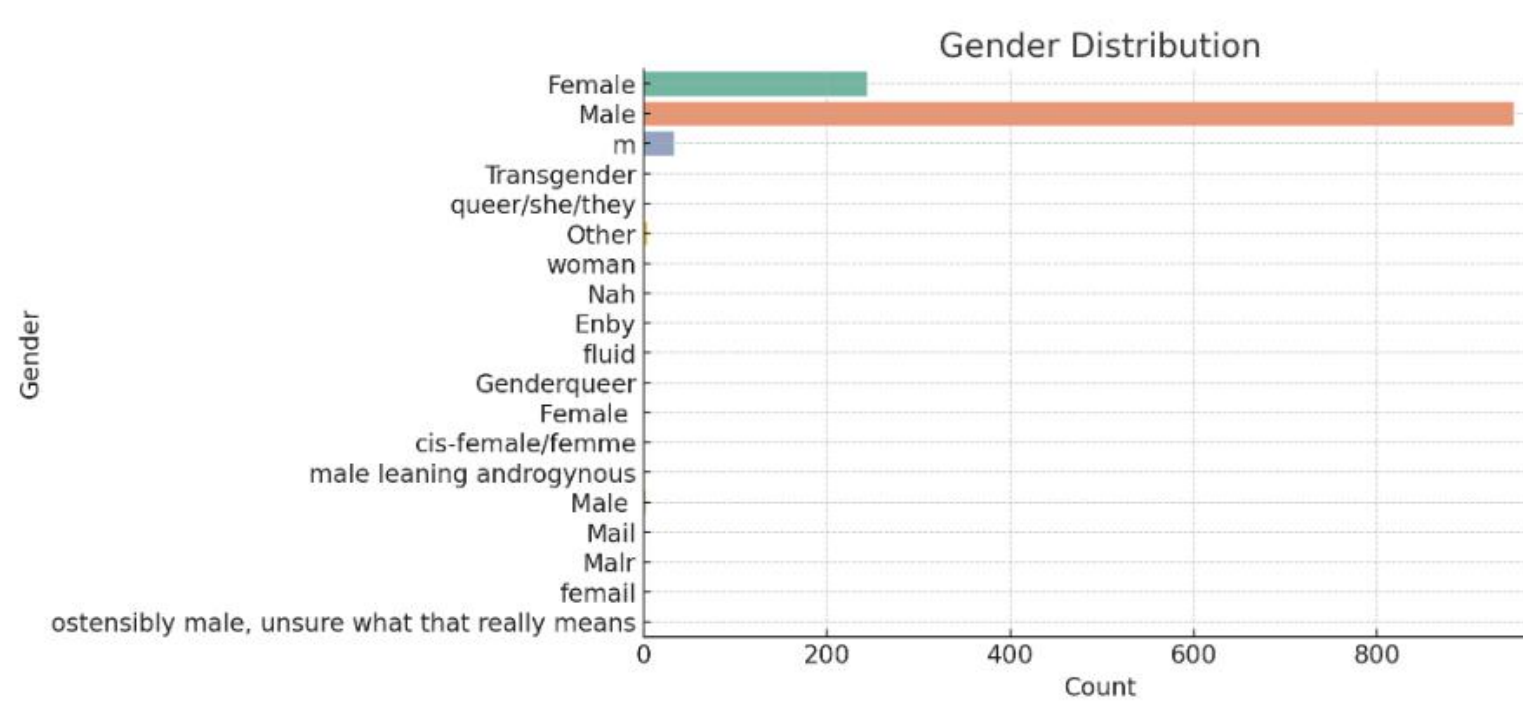
Mental Health Survey with Python

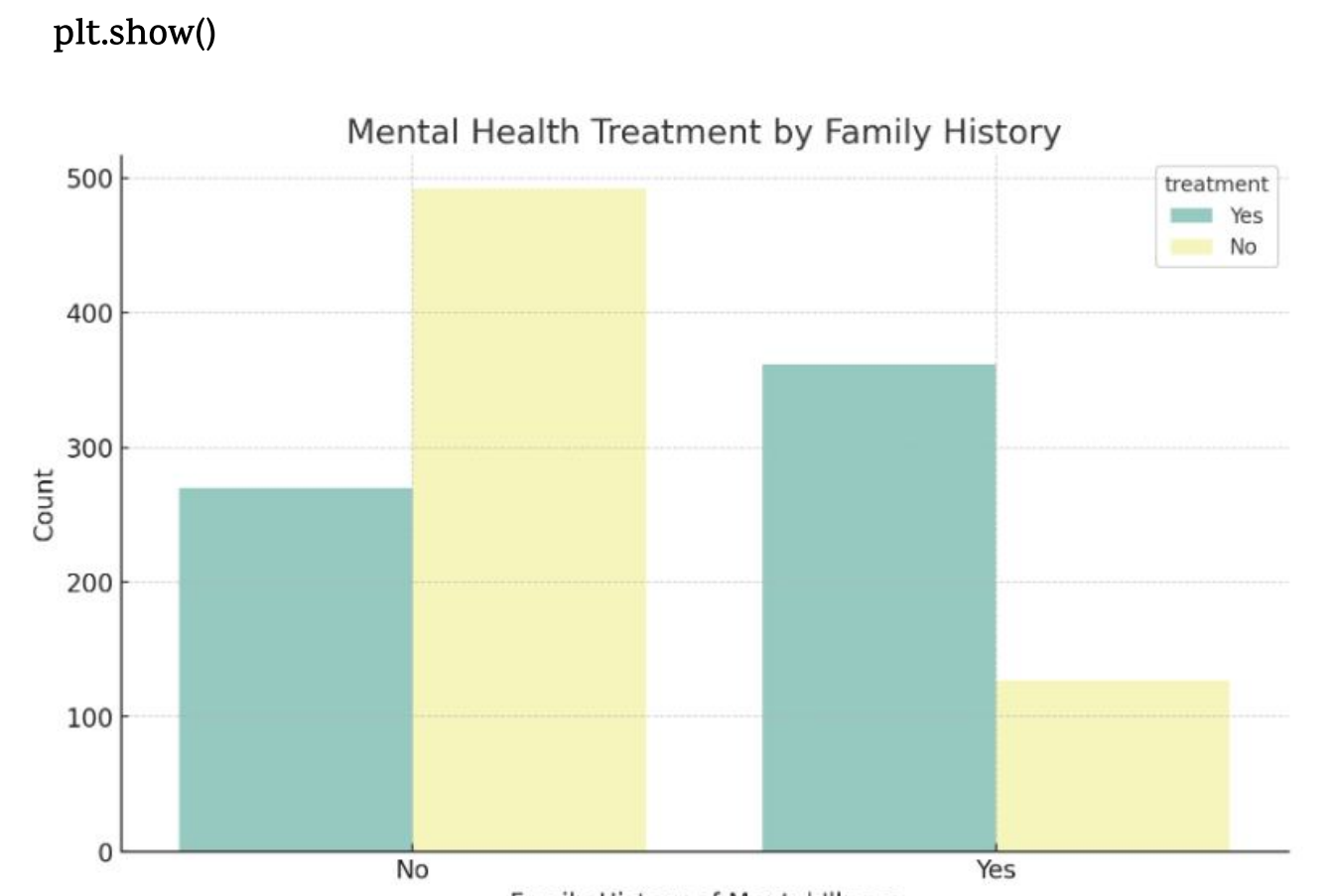
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

# Load the data from the CSV file
   file_path = '/mnt/data/mental_health_survey.csv'
   data = pd.read_csv(file_path)

# Data Cleaning
   data['self_employed'].fillna('No', inplace=True)
   data['work_interfere'].fillna("Don't know", inplace=True)

# Remove outliers in the 'Age' column (e.g., removing ages
   below 18  and above 100)

   data = data[(data['Age'] >= 18) & (data['Age'] <= 100)]

# Replace 'Gender' categories with consistent labels

   gender_replacements = {
   'M': 'Male', 'Male-ish': 'Male', 'maile': 'Male', 'Cis Male': 'Male',
   'something kinda male?': 'Male', 'Guy (-ish) ^_^': 'Male', 'Mal': 'Male',
   'male': 'Male', 'Make': 'Male', 'Male (CIS)': 'Male', 'Man': 'Male',
   'msle': 'Male', 'cis male': 'Male', 'Cis Man': 'Male',
   'F': 'Female', 'f': 'Female', 'female': 'Female',
   'Cis Female': 'Female', 'Woman': 'Female', 'Femake': 'Female',
   'Female (cis)': 'Female', 'Female (trans)': 'Female',
   'Trans-female': 'Transgender', 'Trans woman': 'Transgender',
   'Trans-woman': 'Transgender', 'Female or Multi-Gender Femme': 'Other',
   'Androgyne': 'Other', 'non-binary': 'Other', 'genderqueer': 'Other',
   'Agender': 'Other', 'Male leaning androgynous': 'Other',
   'Transgender woman': 'Transgender', 'Other': 'Other',
   'Neuter': 'Other', 'Fluid': 'Other', 'queer': 'Other',
   'Genderfluid': 'Other'
   }
   data['Gender'].replace(gender_replacements, inplace=True)

# Visualization

1. Distribution of Age
    plt.figure(figsize=(10, 6))
    sns.histplot(data['Age'], kde=True, bins=30, color='skyblue')
    plt.title('Age Distribution of Survey Respondents')
    plt.xlabel('Age')
    plt.ylabel('Frequency')
    plt.grid(True)
    plt.show()
```




```
2. Gender Distribution
    plt.figure(figsize=(8, 5))
    sns.countplot(y='Gender', data=data, palette='Set2')
    plt.title('Gender Distribution')
    plt.xlabel('Count')
    plt.ylabel('Gender')
    plt.grid(True)
    plt.show()
```




```
3. Mental Health Treatment by Family History
    plt.figure(figsize=(10, 6))
    sns.countplot(x='family_history', hue='treatment', data=data, palette='Set3')
    plt.title('Mental Health Treatment by Family History')
    plt.xlabel('Family History of Mental Illness')
    plt.ylabel('Count')
    plt.grid(True)
    plt.show()
```




```
5. Work Interference by Treatment
    plt.figure(figsize=(12, 6))
    sns.countplot(x='work_interfere', hue='treatment', data=data, palette='Set2')
    plt.title('Work Interference by Mental Health Treatment')
    plt.xlabel('Work Interference')
    plt.ylabel('Count')
    plt.grid(True)
   plt.show()
```