

Mental Health & Social Media Usage Analytics Dashboard

1. Project Overview

The purpose of this project is to analyze the relationship between social media usage patterns and mental health indicators using structured data. The project uses Power BI to transform raw behavioral data into meaningful insights that can support awareness, monitoring, and decision-making related to mental well-being.

This project simulates a real-world Business Intelligence (BI) scenario where raw data is collected, cleaned, modeled, and analyzed to answer business and research-driven questions.

2. Business Problem Statement

With the increasing use of social media platforms, concerns have grown regarding their impact on mental health. Excessive screen time, lack of physical activity, poor sleep, and negative online interactions may contribute to stress, anxiety, and mood imbalance.

However, organizations and researchers often lack a structured analytical system to: - Understand behavioral patterns across platforms - Identify correlations between usage habits and mental health conditions - Monitor mental well-being trends over time

This project addresses the need for a centralized analytical view that connects behavioral data with mental health indicators.

3. Business Objectives

The primary objectives of this project are:

- To analyze screen time and social media usage patterns
 - To study the relationship between digital behavior and mental health indicators
 - To identify trends related to stress, anxiety, mood, sleep, and physical activity
 - To enable comparison across different social media platforms
 - To provide a clear, visual representation of insights for decision-makers
-

4. Target Audience

- **Data Analysts:**

To understand how lifestyle and platform usage metrics impact mental well-being.

- **Mental Health Researchers:**

To identify risk indicators associated with excessive screen time and negative interactions.

- **Academic Evaluators / Internship Mentors:**

To assess analytical skills, data modeling, DAX usage, and visualization best practices.

- **Business Intelligence Teams:**

To support data-driven strategies for digital well-being.

5. Scope Of The Project

Dashboard with **three key analysis pages**:

1. **Executive Overview :**

High-level view of overall mental health indicators, including stress levels, sleep patterns, and screen time trends.

2. **Behavioral & Health Analysis :**

In-depth analysis of relationships between lifestyle factors such as sleep hours, physical activity, screen time, and mental health states.

3. **Platform & Usage Insights :**

Analysis of social media platform usage and its impact on stress levels and mental well-being.

4. **Social Media Interaction & Risk Assessment :**

Evaluates mental health risks associated with online interactions.

Features

Interactive Filters (Slicers):

- Mental State
- Date (Year, Month)

- Platform
 - Age Group
-

6. Data Source

Total Dataset Size: Approximately 364 KB .

Data Format: CSV (Comma-Separated Values)

7. Key Performance Indicators (KPIs)

The following KPIs are used to measure and analyze outcomes:

- Average Daily Screen Time (Minutes)
 - Average Sleep Hours
 - Average Stress Level
 - Total Participants
-

8. Deliverables

1. Selection of a mental health and social media usage dataset, loading it into Power BI, and documenting the Business Requirements.
 2. Assessment of the dataset followed by data cleaning, preprocessing, and normalization using Power Query.
 3. Documentation of Functional Requirements and preparation of dashboard layout and visual design structure.
 4. Development of the Power BI dashboard along with implementation of the data model (draft version).
 5. Finalization of the dashboard and data model, validation of measures and visuals, and preparation of an Analysis Report along with a README document.
-

9. Timeline / Milestones (5-Day Plan)

Day Task

Day 1 Dataset Understanding and Business Requirement Definition

Day 2 Data Cleaning, Normalization, and Relationship Modeling in Power BI

Day 3 DAX Measure Creation and Data Validation

Day 4 Dashboard Design and Development (Pages 1–3)

Day 5 Final check and Documentation

10. Notes / Assumptions

- The dataset represents **historical mental health and social media usage data**.
 - Data is loaded directly into Power BI from structured files.
 - Only valid and complete records are included in the analysis.
 - Data cleaning and transformation are performed using **Power Query**.
 - Data modeling follows a **Star Schema** approach.
 - **Health** table acts as the Fact table.
 - **Person_Details, Mental_State, Platform, and Date** act as Dimension tables.
 - Dashboards are designed to provide **analytical and management-level insights**.
 - Power BI is used for data modeling, DAX calculations, and visualization.
 - Measures are created using **DAX**.
 - Missing or inconsistent records are excluded during preprocessing.
-

