**🧠 Mental Health Dashboard Analysis Report**

**🔍 Objective**

This report provides a comprehensive analysis of **key mental health metrics**—specifically **anxiety (GAD)**, **depression (PHQ)**, **mood states**, and **stress levels**—tracked over a **rolling 13-month period**. Through interactive visualizations including line charts, bar graphs, box plots, and heatmaps, the dashboard uncovers patterns, distributions, and correlations that inform **early intervention**, **resilience-building strategies**, and **data-driven wellness programs**.

**📊 Key Metrics Summary**

| **Metric** | **Value** |
| --- | --- |
| **Average GAD Score** | 5.90 |
| **Average PHQ Score** | 7.32 |

These averages serve as baseline indicators for the general population within the monitored cohort. The moderate range of scores suggests potential opportunities for early intervention among subgroups.

**📈 Trends Over Time (Line Chart: Months 1–13)**

* **GAD and PHQ scores rise and fall in parallel**, indicating a **strong correlation between anxiety and depression trends**.
* Notable **spikes in both scores** during specific months may reflect external factors such as **seasonal changes, academic/workload peaks**, or **global/local events**.

📌 **Insight**: The temporal alignment suggests common environmental or psychological stressors impacting both conditions simultaneously.

**📊 Status Distribution (Bar Charts)**

**Anxiety Status Distribution**

* **Minimal Anxiety**: Majority
* Followed by: **Mild > Moderate > Severe**

**Depression Status Distribution**

* **Minimal Depression**: Majority
* Followed by: **Mild > Moderate > Moderately Severe > Severe**

📌 **Insight**:

* Most individuals fall within **minimal or mild ranges**, which is encouraging.
* However, a **significant tail** exists in higher severity categories, emphasizing the need for **continuous monitoring** and **early-stage support**.

**📦 GAD vs. PHQ Severity (Box Plot Analysis)**

* Anxiety (GAD) scores increase **consistently** as depression severity (PHQ levels) worsens.
* Median and interquartile ranges widen from **minimal** to **severe** depression.

📌 **Insight**:

* Confirms **clinical comorbidity** between anxiety and depression.
* Supports **cross-diagnostic screening**: individuals presenting one symptom should be evaluated for the other.

**😊 Mood State Distribution**

| **Mood** | **Count** |
| --- | --- |
| Angry | 60 |
| Neutral | 58 |
| Depressed | 51 |
| Relaxed | 50 |
| Happy | 49 |
| Stressed | 46 |

📌 **Insight**:

* Mood responses are **fairly balanced**, though **negative affect states (Angry, Depressed)** slightly outweigh positive ones.
* **Neutrality** being second-highest may indicate **emotional flatness or detachment**, worth further exploration.

**💢 Stress Level Breakdown**

| **Stress Level** | **Count** |
| --- | --- |
| Low | 157 |
| Medium | 157 |
| High | 51 |

📌 **Insight**:

* Equal split between **low and medium stress** implies general manageability.
* The relatively **low high-stress count** may reflect **under-reporting** or **effective coping strategies**.

**🔗 Correlations and Behavioral Patterns**

* **GAD vs. PHQ**: Strong **positive correlation** (confirmed through parallel time trends and overlapping distributions).
* **Stress vs. Mood**: Surprisingly, **high stress does not align with high negative mood reports**, suggesting:
  + **Resilience mechanisms**
  + **Survey fatigue**
  + Or **delayed mood impact**
* **Monthly Score Fluctuations**: GAD/PHQ spikes likely tied to **external stressors**, such as:
  + Fiscal quarters
  + Academic exams
  + Winter months (possible seasonal affective influence)

**📌 Recommendations**

**🎯 Targeted Mental Health Interventions**

* Prioritize users in **mild-to-moderate categories** before symptoms escalate.
* Implement **monthly check-ins** and promote **access to early therapy or coaching**.

**🧘 Stress Management Programs**

* Despite low high-stress reporting, correlation with GAD/PHQ spikes implies hidden risk.
* Launch **guided meditation**, **breathwork apps**, or **micro-break campaigns**.

**🌈 Mood Enhancement Initiatives**

* Host virtual or in-person **“Mood Lift” programs**: wellness challenges, gratitude journaling, team-building.
* Reinforce **positive emotional literacy** in platforms or communications.

**📅 Seasonal/Temporal Planning**

* Cross-reference peaks with external events to:
  + Time wellness campaigns better
  + Predict future spikes
  + Design **resilience workshops during high-risk months**

**🔍 Deep-Dive Demographic Analytics**

* Use demographic filters (e.g., **age, gender, occupation, time zone**) to:
  + Uncover **localized or cultural patterns**
  + Customize interventions
  + Optimize mental health resource allocation

**📚 Conclusion**

This 13-month analysis highlights clear trends, relationships, and risk profiles in anxiety, depression, mood, and stress. The dashboard effectively enables **data-driven mental health strategy**, empowering organizations and clinicians to:

* **Monitor at scale**
* **Detect early risk signals**
* **Implement preventive care**
* **Foster emotional well-being through targeted programming**