

Individual Sleep Analysis Report

Subject ID: 11 | Healthy Control Study

Analysis Date: August 16, 2025 | Nights Analyzed: 2 | Report Generated by: Sleep-EDF Analysis System

Subject Information

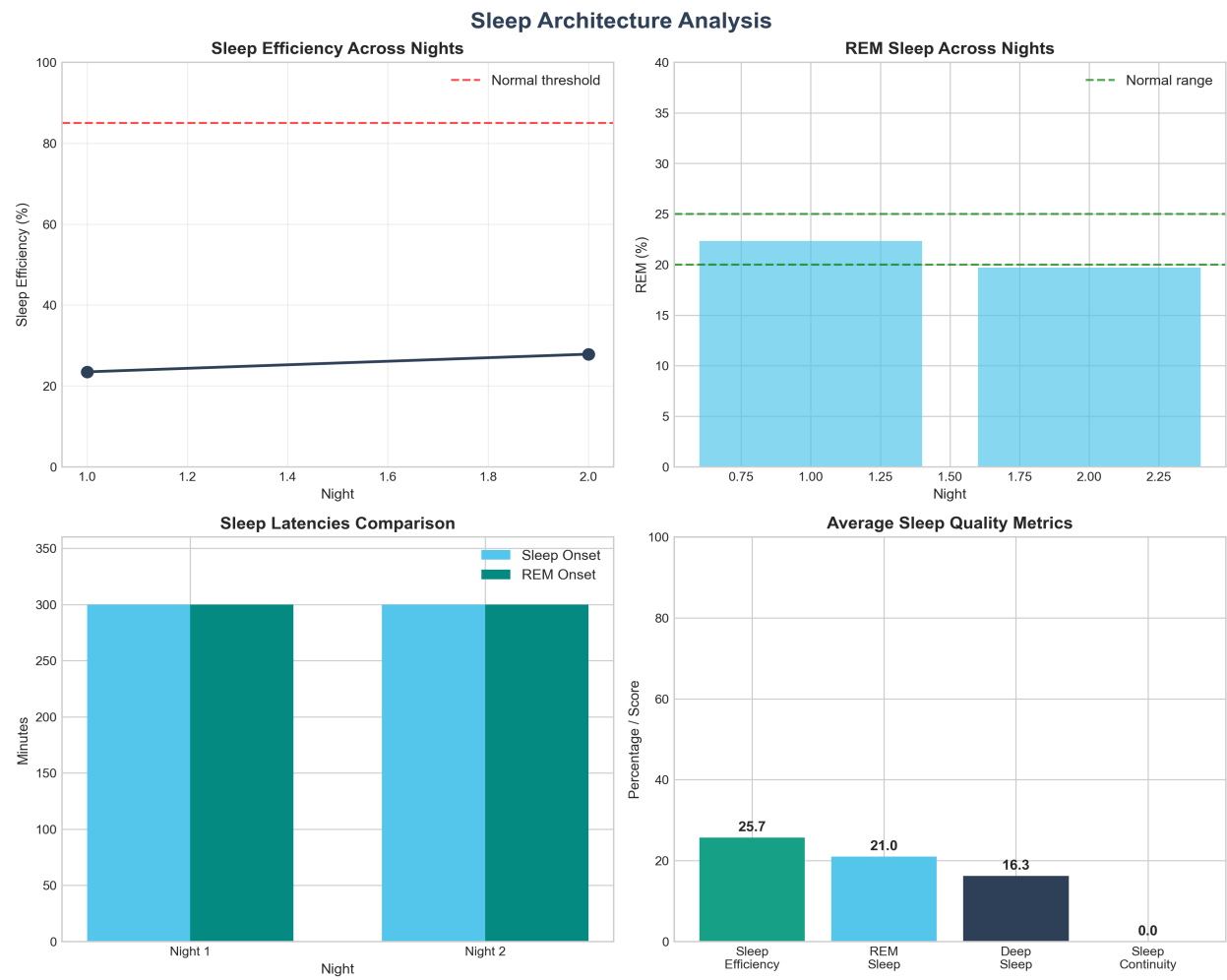
Subject ID	11
Age	26 years
Sex	M
Study Type	Healthy Controls
Number of Nights	2
Recording Dates	Multiple nights

Executive Summary

This report presents a comprehensive analysis of 2 night polysomnographic recordings for Subject 11, a 26-year-old M participant from the Sleep Cassette (healthy controls) study under nan condition.

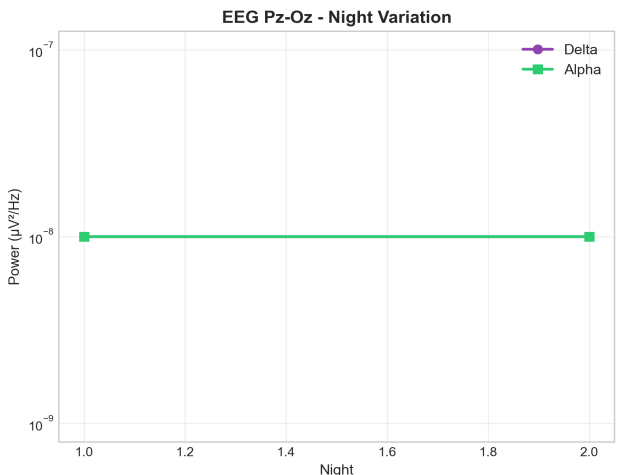
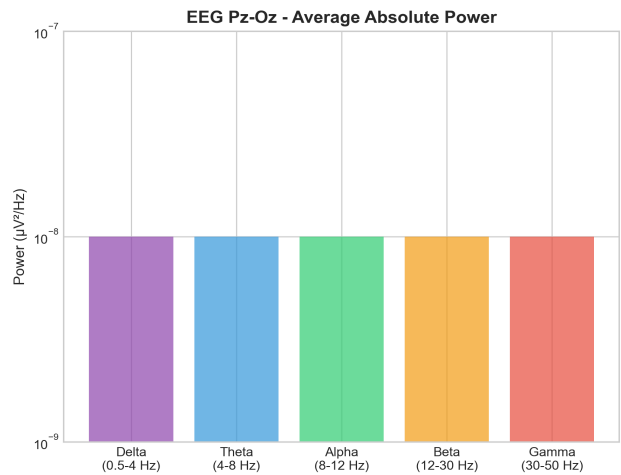
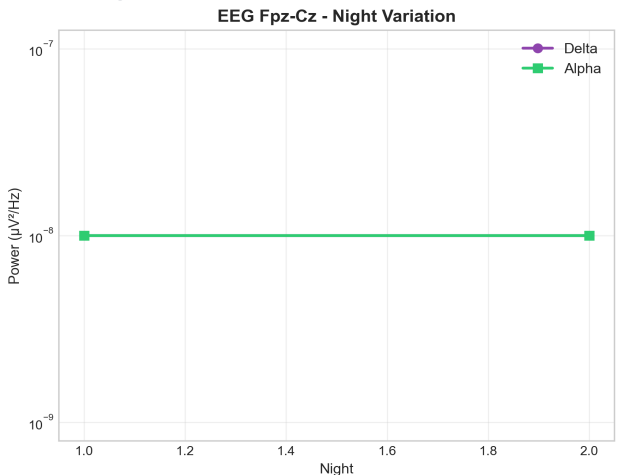
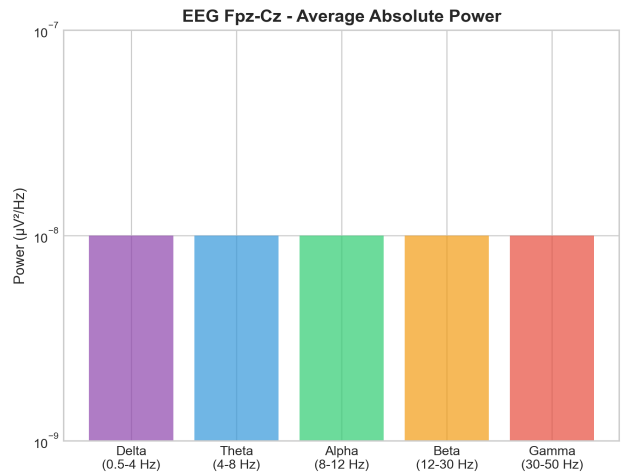
Metric	Value	Clinical Interpretation
Sleep Efficiency	25.7%	Below Normal (<85%)
Sleep Latency	532.5 min	Prolonged (>30min)
REM Latency	629.8 min	Atypical
REM Sleep	21.0%	Normal (20-25%)
Wake After Sleep Onset	453.2 min	Elevated (>30min)

Sleep Architecture Analysis

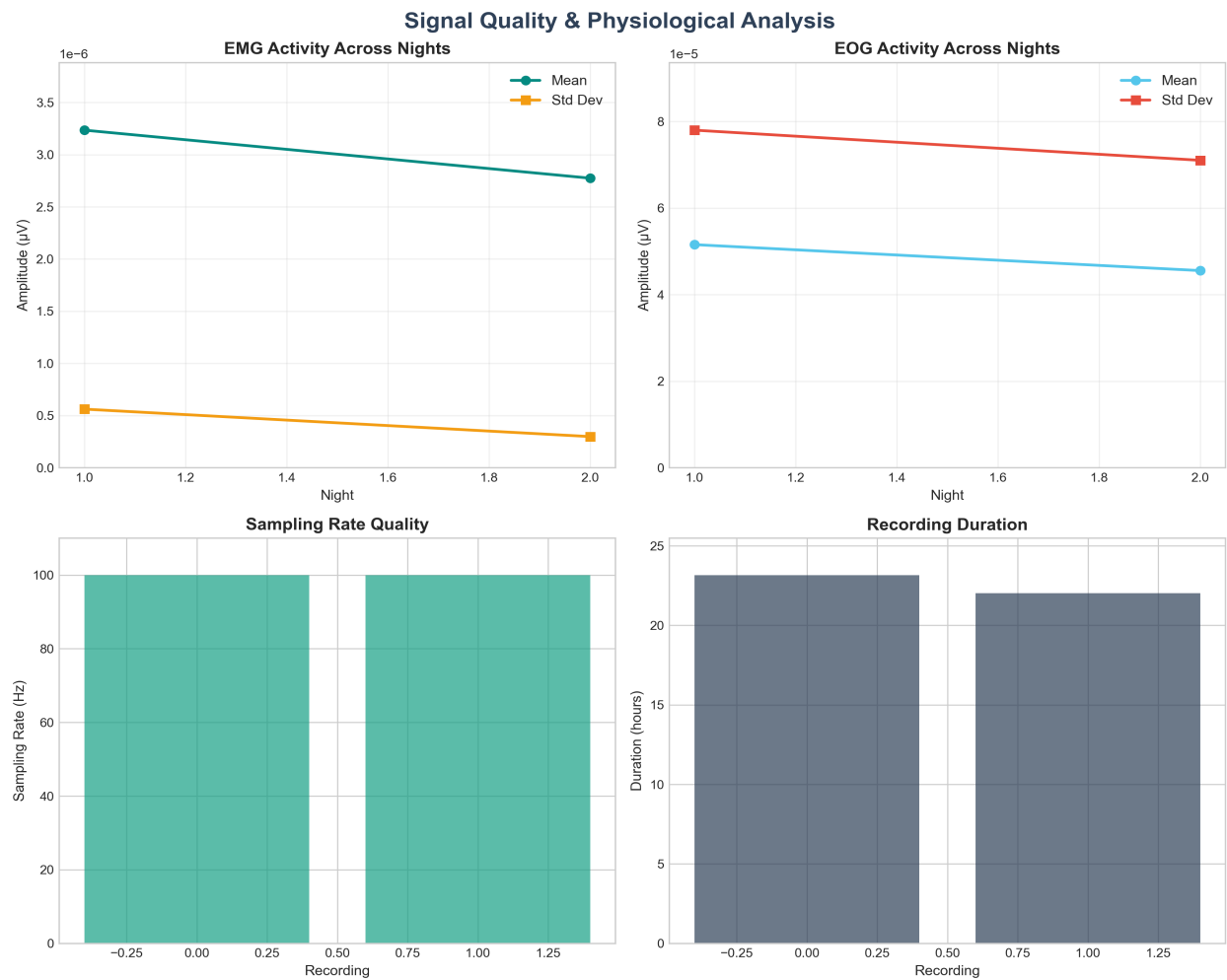


Neurophysiological Analysis - EEG Power Spectrum

EEG Power Spectral Analysis

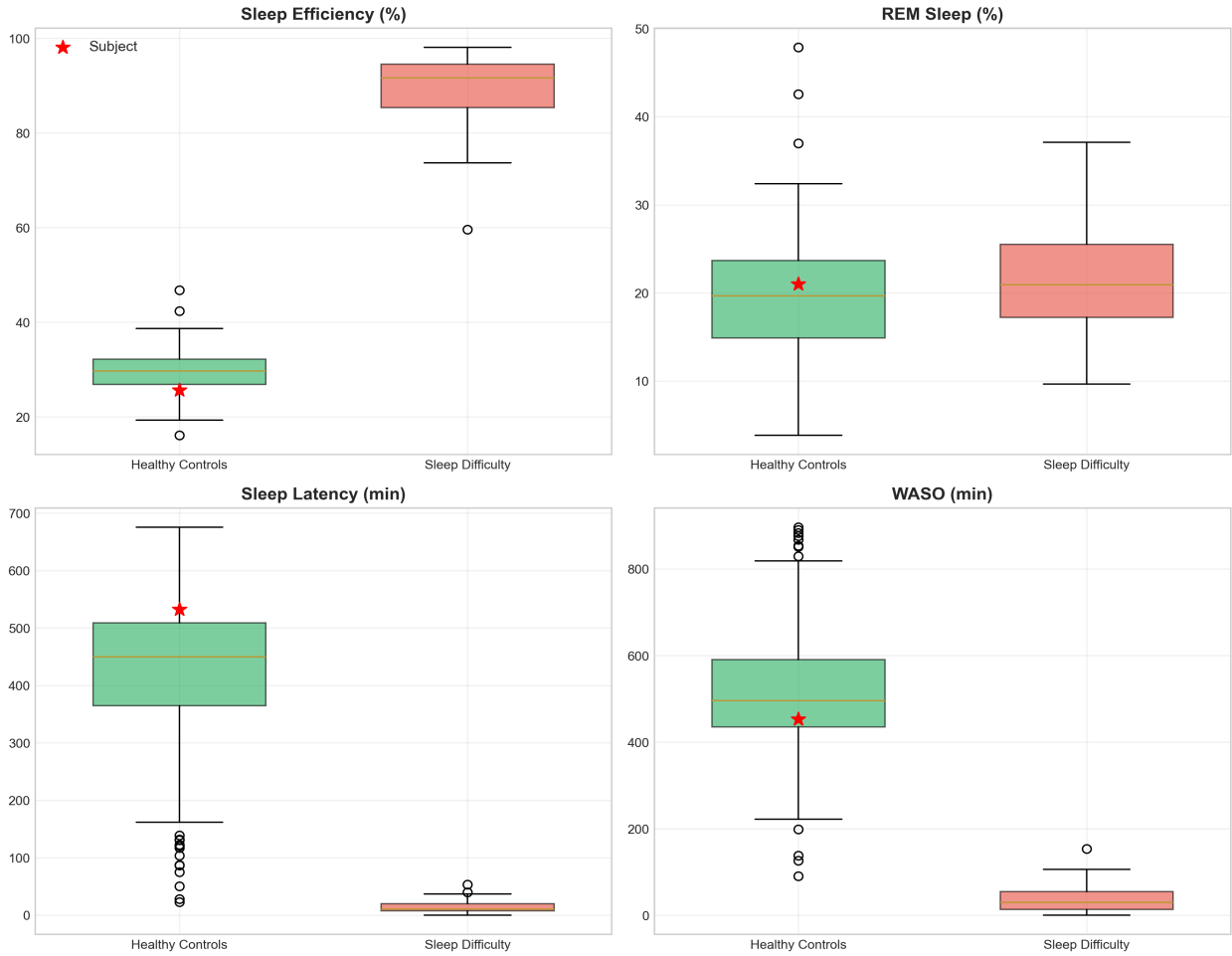


Signal Quality & Physiological Assessment



Population Comparative Analysis

Comparative Population Analysis



Clinical Interpretation & Recommendations

Overall Sleep Health Assessment

Sleep Quality Level: **FAIR**

Fair sleep quality with some metrics outside normal ranges. The subject's sleep architecture shows:

- Sleep Efficiency: 25.7% (Below normal)
- REM Sleep: 21.0% (Normal)
- Deep Sleep: 16.3% (Adequate)
- Sleep Continuity: Fragmented (WASO: 453.2 min)

Key Findings

- **Reduced Sleep Efficiency:** At 25.7%, sleep efficiency is below the normal threshold of 85%, indicating potential sleep quality issues.
- **Normal REM Sleep:** REM sleep comprises 21.0% of total sleep, which is within the normal range.
- **Adequate Deep Sleep:** Deep sleep stages comprise 16.3% of sleep, indicating good restorative sleep.

Recommendations

- Consider sleep hygiene counseling and evaluation of factors affecting sleep quality
- Investigation of factors causing sleep fragmentation may be beneficial

Report Analysis and Generation:

Report Analysed and created by the following students of IIIT Allahabad,
Part of Big Data Analytics Course:

- Aditya Singh Mertia (IIT2022125) - [iit2022125@iiita.ac.in]
- Rishabh Kumar (IIT2022131) - [iit2022131@iiita.ac.in]
- Karan Singh (IIT2022132) - [iit2022132@iiita.ac.in]
- Tejas Sharma (IIT2022161) - [iit2022161@iiita.ac.in]

Report Version: 1.0 | Generated: August 16, 2025 at 08:57 PM