

Individual Sleep Analysis Report

Subject ID: 29 | Healthy Control Study

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

Subject Information

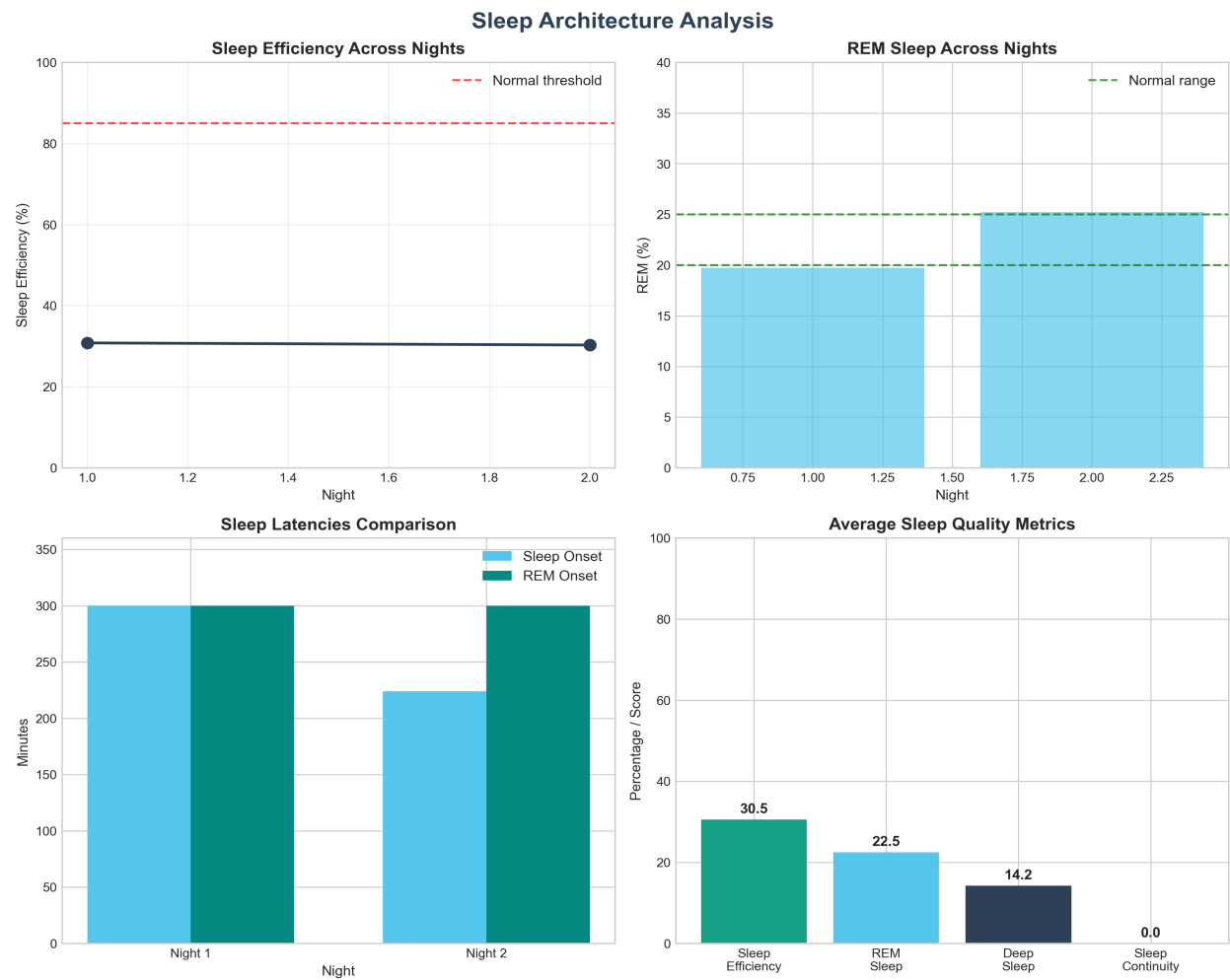
Subject ID	29
Age	51 years
Sex	F
Study Type	Healthy Controls
Number of Nights	2
Recording Dates	Multiple nights

Executive Summary

This report presents a comprehensive analysis of 2 night polysomnographic recordings for Subject 29, a 51-year-old F participant from the Sleep Cassette (healthy controls) study under nan condition.

Metric	Value	Clinical Interpretation
Sleep Efficiency	30.5%	Below Normal (<85%)
Sleep Latency	332.2 min	Prolonged (>30min)
REM Latency	525.0 min	Atypical
REM Sleep	22.5%	Normal (20-25%)
Wake After Sleep Onset	618.8 min	Elevated (>30min)

Sleep Architecture Analysis

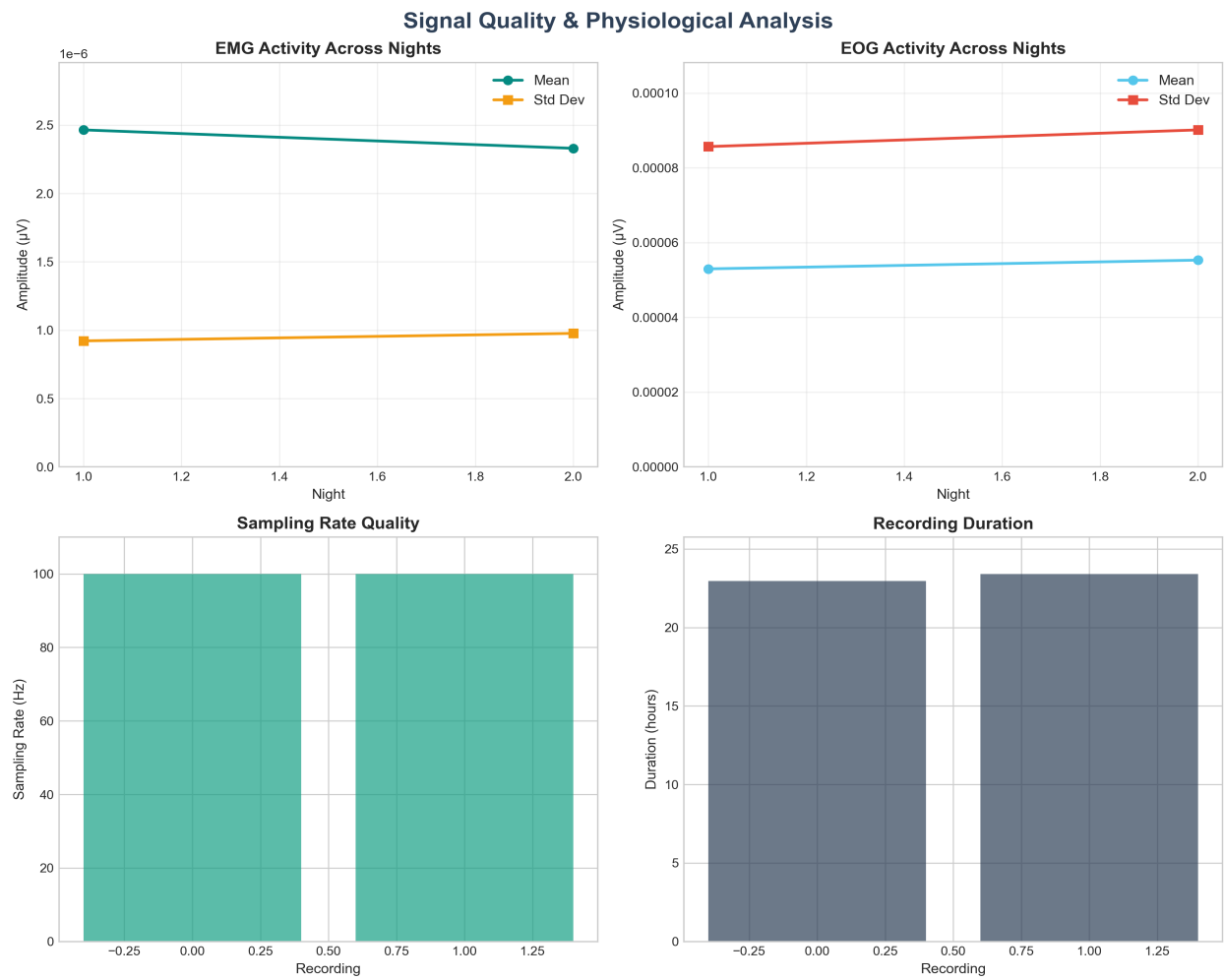


Neurophysiological Analysis - EEG Power Spectrum

EEG Power Spectral Analysis

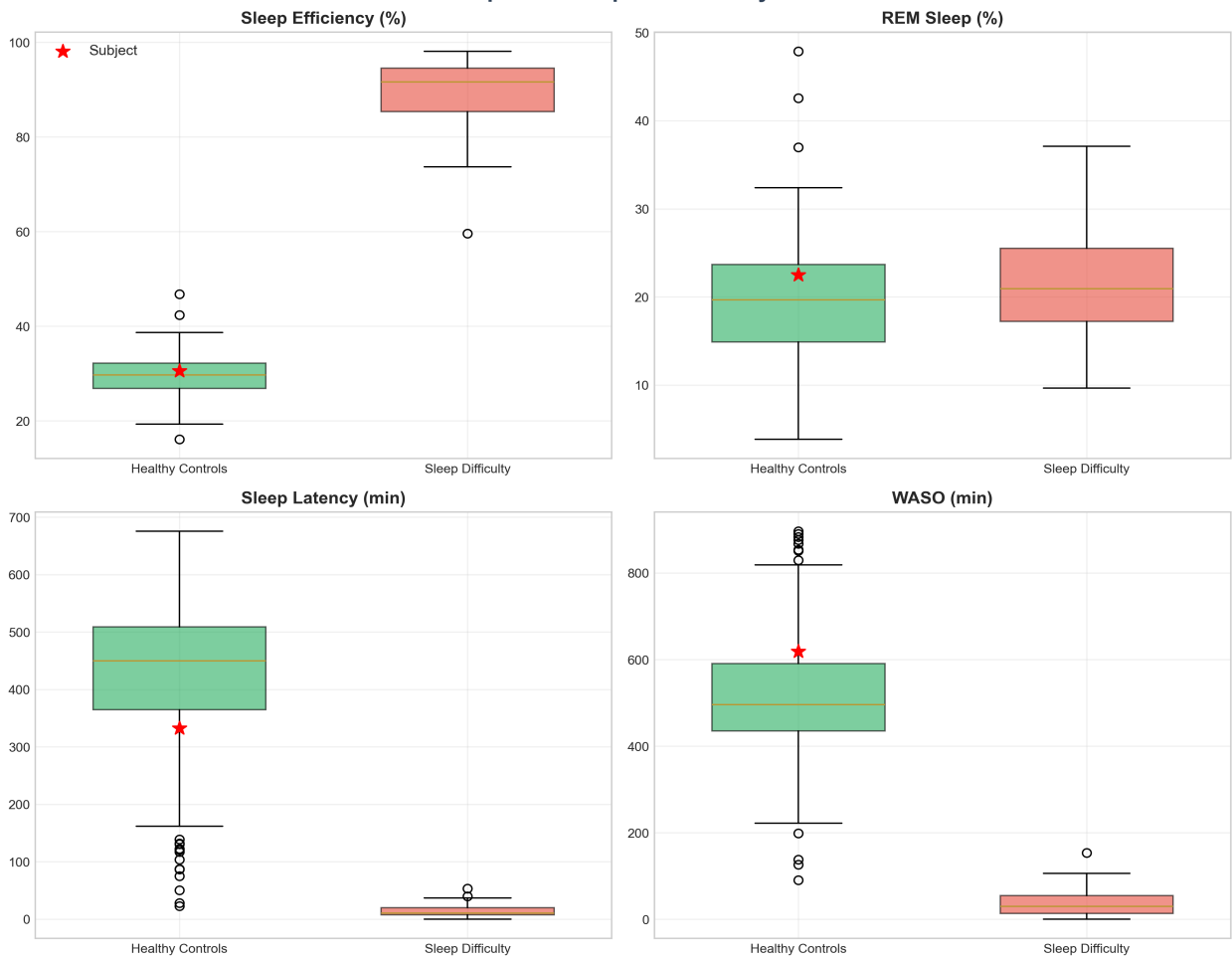


Signal Quality & Physiological Assessment



Population Comparative Analysis

Comparative Population Analysis



Clinical Interpretation & Recommendations

Overall Sleep Health Assessment

Sleep Quality Level: POOR

Poor sleep quality with multiple metrics outside normal ranges. The subject's sleep architecture shows:

- Sleep Efficiency: 30.5% (Below normal)
- REM Sleep: 22.5% (Normal)
- Deep Sleep: 14.2% (Reduced)
- Sleep Continuity: Fragmented (WASO: 618.8 min)

Key Findings

- **Reduced Sleep Efficiency:** At 30.5%, sleep efficiency is below the normal threshold of 85%, indicating potential sleep quality issues.
- **Normal REM Sleep:** REM sleep comprises 22.5% of total sleep, which is within the normal range.
- **Reduced Deep Sleep:** Deep sleep stages (N3+N4) comprise 14.2% of sleep, which may indicate reduced sleep restoration.

Recommendations

- Consider sleep hygiene counseling and evaluation of factors affecting sleep quality
- Assess sleep environment and factors that may be disrupting deep sleep stages
- 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 08:58 PM