Individual Sleep Analysis Report

Subject ID: 1 | Sleep Difficulty Study

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

Subject Information

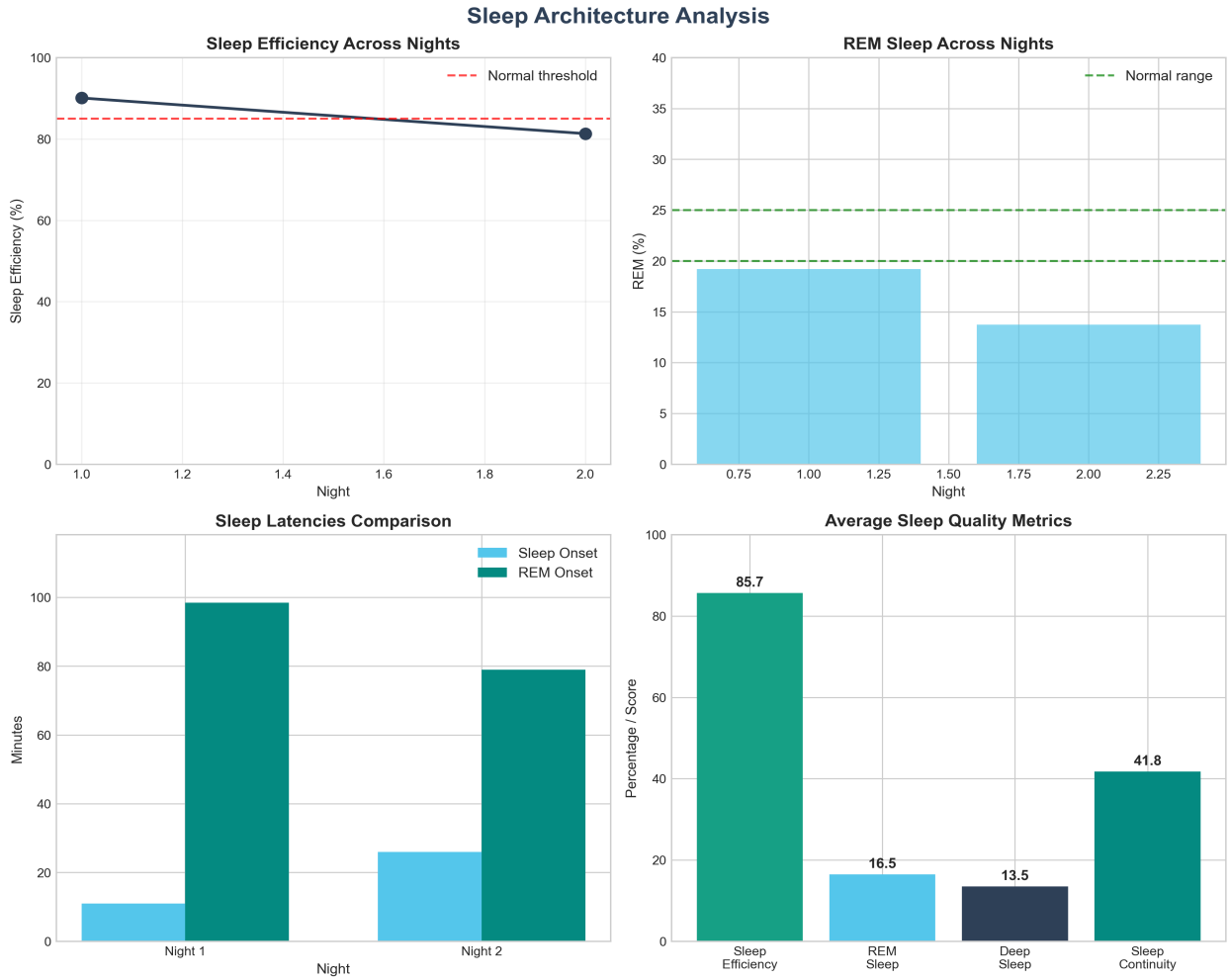
Subject ID	1
Age	60 years
Sex	M
Study Type	Sleep Difficulty
Number of Nights	2
Recording Dates	Multiple nights
Study Conditions	temazepam, placebo

Executive Summary

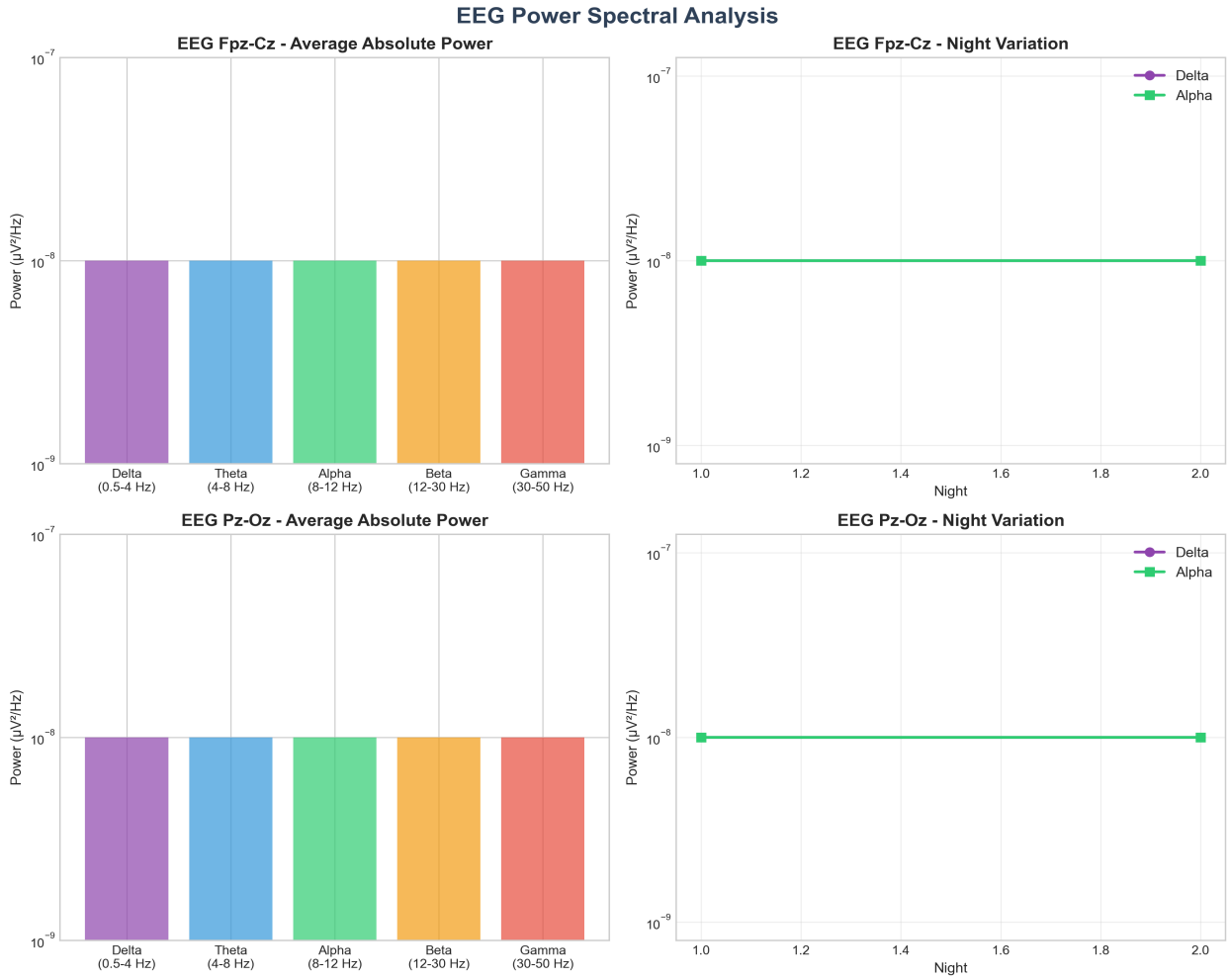
This report presents a comprehensive analysis of 2 night polysomnographic recordings for Subject 1, a 60-year-old M participant from the Sleep Telemetry (sleep difficulty) study under temazepam and placebo conditions.

Metric	Value	Clinical Interpretation
Sleep Efficiency	85.7%	Normal (≥85%)
Sleep Latency	18.5 min	Normal (≤30min)
REM Latency	88.8 min	Normal (60-120min)
REM Sleep	16.5%	Atypical
Wake After Sleep Onset	58.2 min	Elevated (>30min)

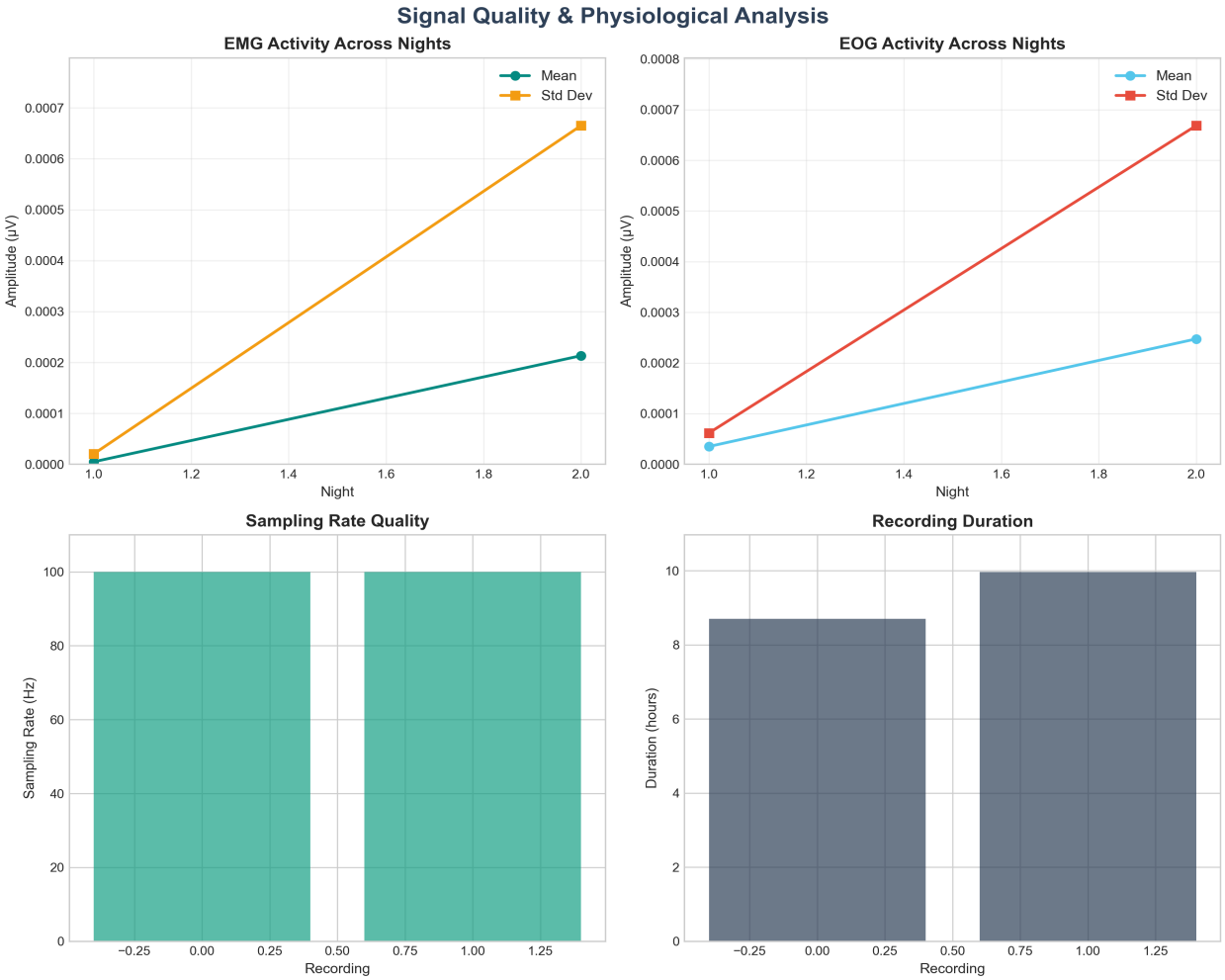
Sleep Architecture Analysis



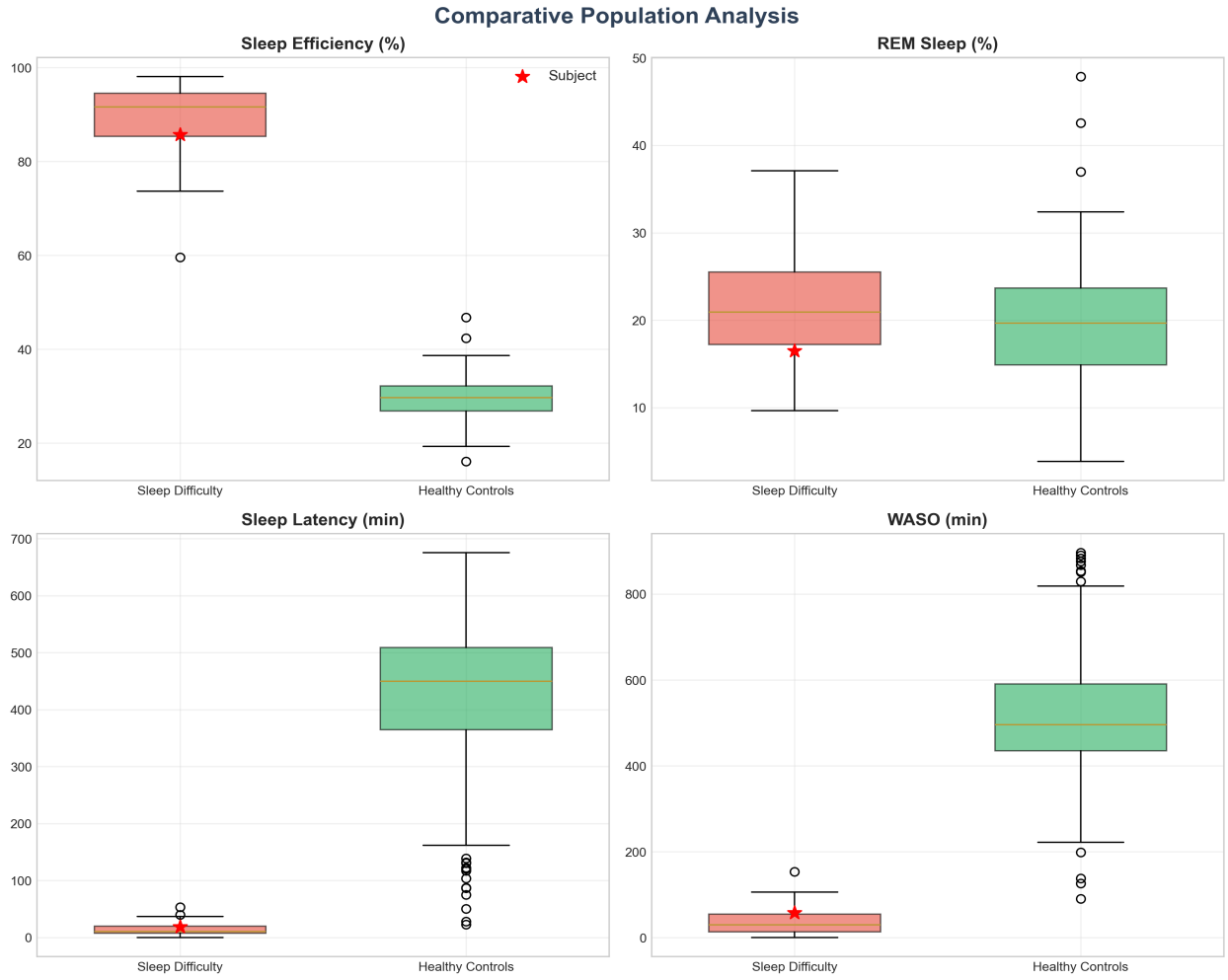
Neurophysiological Analysis - EEG Power Spectrum


EEG Power Spectral Analysis
EEG Fpz-Cz - Average Absolute Power
EEG Fpz-Cz - Night Variation
EEG Pz-Oz - Average Absolute Power
EEG Pz-Oz - Night Variation
Power (µV²/Hz)
Delta (0.5-4 Hz)
Theta (4-8 Hz)
Alpha (8-12 Hz)
Beta (12-30 Hz)
Gamma (30-50 Hz)
Night
Delta
Alpha

Signal Quality & Physiological Assessment



Population Comparative Analysis


Comparative Population Analysis
Sleep Efficiency (%)
Subject
100
80
60
40
20
Sleep Difficulty
Healthy Controls
REM Sleep (%)
50
40
30
20
10
Sleep Difficulty
Healthy Controls
Sleep Latency (min)
700
600
500
400
300
200
100
0
Sleep Difficulty
Healthy Controls
WASO (min)
800
600
400
200
0
Sleep Difficulty
Healthy Controls

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: 85.7% (Normal)
• REM Sleep: 16.5% (Atypical)
• Deep Sleep: 13.5% (Reduced)
• Sleep Continuity: Fragmented (WASO: 58.2 min)

Key Findings

• **Good Sleep Efficiency**: At 85.7%, sleep efficiency is within normal range, indicating good sleep quality.
• **Reduced REM Sleep**: REM sleep comprises 16.5% of total sleep, which is below the normal range of 20-25%.
• **Reduced Deep Sleep**: Deep sleep stages (N3+N4) comprise 13.5% of sleep, which may indicate reduced sleep restoration.
• **Medication Effect**: Temazepam improved sleep efficiency by 8.8% compared to placebo night.

Recommendations

• Evaluate for potential REM sleep disorders or medications affecting REM sleep
• Assess sleep environment and factors that may be disrupting deep sleep stages
• Investigation of factors causing sleep fragmentation may be beneficial