

Full Name _____ Age/ Sex _____ M / F _____ Record # _____

USER GUIDE FOR SPECIALISTS: FOR CUSTOMIZED OR COMBINATION THERAPY

PROGRAM : IMPROVE SLEEP

BELLABEE SET-UP INSTRUCTIONS:

1. Download the Bellabee apps from Google Play or the Apple store.
2. Connect the Bellabee headband to your mobile device earphone jack.
3. Turn the mobile device volume setting to maximum.
4. Put the Bellabee band around your head as instructed.
5. Run the desired app program on the mobile device.

GUIDELINES FOR BELLABEE USE:

Bellabee can be used for stand-alone therapy (using pre-set and customized programs) or in combination with Neurofeedback, Psychotherapy, Pharmacotherapy, and other therapeutic modalities. The client can use the device at home between office sessions to improve retention. The “Custom Therapy” option lets you customize frequency and duration so you can create programs tailored toward your client’s needs. This arrangement could potentially reduce the number of therapy sessions, lessen the need for pharmacological agents, decrease the response period and subsequently reduce costs for clients and specialists.

RELATED INFORMATION:

- **Polysomnography (PSG):** the gold standard test used to diagnose sleep disorders. It evaluates oxygen levels, body movements, and brain waves to determine how these factors are interrupting sleep.
- NREM (Non-Rapid Eye Movement) and REM (Rapid Eye Movement) stages of sleep occur in alternating cycles, each lasting approximately 90-100 minutes, with a total of 4-6 cycles. For a healthy young adult, NREM sleep generally accounts for 75-90% of sleep time (3-5% stage I, 50-60% stage II, and 10-20% stages III and IV). REM sleep accounts for 10-25% of sleep time.

[Relevant Information](#)

[Bellabee Information](#)

[Neurofeedback and Bellabee](#)

[Scientific Research](#)

[FAQs](#)

Brainwaves	Delta	Theta	Lo-Alpha	Hi-Alpha	(SMR)	Lo-Beta	Hi-Beta	Gamma
Normal Range	0.5-4 Hz	4-8 Hz	8-10 Hz	10-13 Hz	(13-15 Hz)	13-20 Hz	20-30 Hz	30 Hz & above

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DATA INPUT

IMPROVE SLEEP

Reason for Use	
Baseline symptom rating	1 2 3 4 5 6 7 8 9 10 (1 = mild; 10 = severe)
Initial response seen	after _____ sessions
Improvement/end result	0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Before QEEG (Findings)	
After QEEG (Findings)	

CUSTOM SETTINGS

Neurofeedback/ Psychotherapy/ Pharmacotherapy/ Other Therapies

User Guide for Specialists: For Customized and Combination Therapy	Start with appropriate custom settings given below and adjust according to the brainwave analysis and individual response.
<u>Deviation:</u> Deficit in slow THETA & DELTA activity [ref: typical neurofeedback plan]	8 Hz (10 min), 6 Hz (10 min), 5 Hz (10 min), 4 Hz (10 min), 3 Hz (10 min). 1. 12-15 Hz up on Cz or C4. Inhibit 4-7 Hz and 20-28 Hz. 2. Train 26-32 Hz down on Fz. 3. Z-score training at Fz Pz T3 T4. 4. ISF training at T3-T4.
<u>Deviation:</u> Increase in HI-BETA (leads to insomnia due to over-activity in the brain.) [ref: typical neurofeedback plan]	When the session begins, help the patient calm their mind 8 Hz (10 min), 9 Hz (10 min), 10 Hz (20 min), 9 Hz (10 min), 8 Hz (10 min). Then use: 8 Hz (10 min), 6 Hz (10 min), 5 Hz (10 min), 4 Hz (10 min), 3 Hz (10 min). 1. 12-15 Hz up on Cz or C4. Inhibit 4-7 Hz and 20-28 Hz. 2. Train 26-32 Hz down on Fz. 3. Z-score training at Fz Pz T3 T4. Add a beta inhibit at Fz for excessive Hi-beta activity. 4. ISF training at T3-T4.
Note:	Keep the client's age and response in mind and make frequency adjustments accordingly.

RECOMMENDED GUIDELINES

Average

(Range)

Duration of each session	50 min	(40-80 min)
Sessions per week	6	(2-14)
Initial response after	20-30 sessions	(2-60)
Total sessions required	30-50	(20-Unlimited)

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Session No.	Date mm/dd/yy	Week No.	Duration Min.	Symptom Decrease	Progress %	Remarks

(Print more sheets to cover additional sessions)

Brainwaves Normal Range Delta 0.5-4 Hz Theta 4-8 Hz Lo-Alpha 8-10 Hz Hi-Alpha 10-13 Hz (SMR) (13-15 Hz) Lo-Beta 13-20 Hz Hi-Beta 20-30 Hz Gamma 30 Hz & above