

Supplementary material

TABLES:

TYPES OF SOUND STIMULUS USED (BB versus IT)

Isochronic Tones	Binaural Beats
Physical/objective beat	Subjective perception
Presentation of composite frequencies for reception by one ear or both simultaneously	Presentation of close frequencies for each ear separately (binaural generation)
Peripheral	Central
Demodulated (processed) in the cochlea	Processed in the superior medial olivary nuclei
Capable of being perceived in one or both ears	Requires combined action from both ears
Audible over a wider beat frequency range and higher carrier tones	Present when beat frequencies are low and with carrier tones below 1000 Hz

Table S1 – Main characteristics of binaural sounds and isochronic tones.

Note. Adapted from “Auditory beat stimulation and its effects on cognition and mood States,” by Chaieb L, Wilpert EC, Reber TP, Fell J. *Front Psychiatry*. 2015;6:70. (<https://www.frontiersin.org/articles/10.3389/fpsy.2015.00070/full>).
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EEG COLLECTION TIMES

Collection Identification	Application time	Type of collection
Pre-treatment – Event 1	5 minutes	EEG Basal
Treatment event 1	5 minutes	EEG Treatment 1
Post-treatment – Event 1	5 minutes	EEG Post-treatment 1
AFTER 21 DAYS	5 minutes	
Pre-treatment – Event 2		EEG Pre-treatment 2
Treatment event 2	20 minutes	EEG Treatment 2
Post-treatment – Event 2	5 minutes	EEG- Post-treatment 2

Table S2 - EEG collection times

PROCEDURES UTILIZED

Baseline – Event 1	Pre-treatment	Treatment	Post-treatment
Procedure performed	Blood pressure and heart rate		Blood pressure and heart rate
	DASS-21 (T1)		
	PSQI (T1)		
	EEG (Pre-T1),	EEG (T1)	EEG (Pos-T1)
Final – Event 2			
Procedure performed	Blood pressure and heart rate		Blood pressure and heart rate
	DASS-21 (T2)		
	PSQI (T2)		
	EEG (Pre-T2),	EEG (T2)	EEG (Pos-T2)

Table S3 - Experimental design and procedures utilized in the present study.

Supplementary material

Experimental design

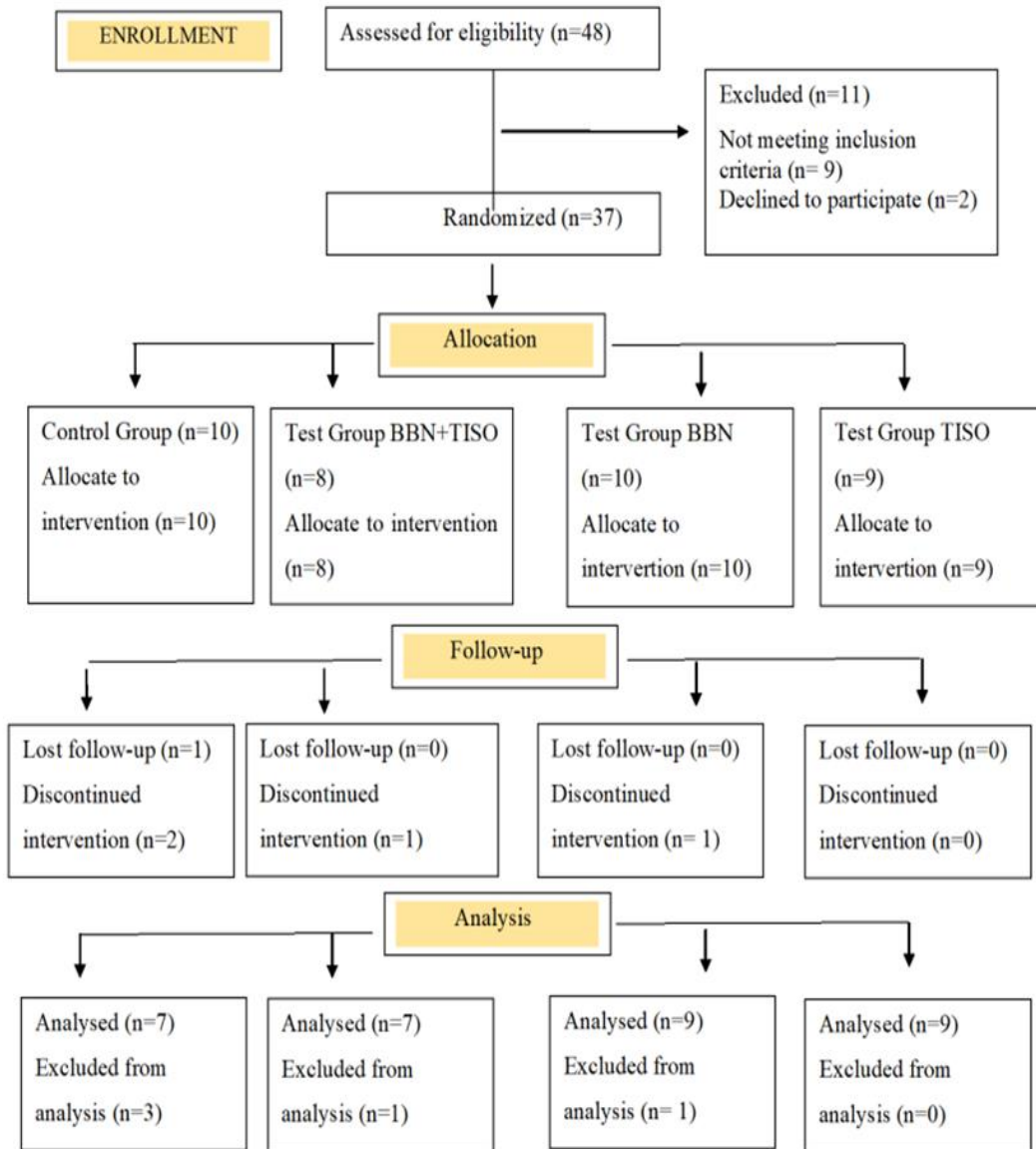


Figure S1 - Experimental design.

Supplementary material
 Calculation of n (G*Power software).

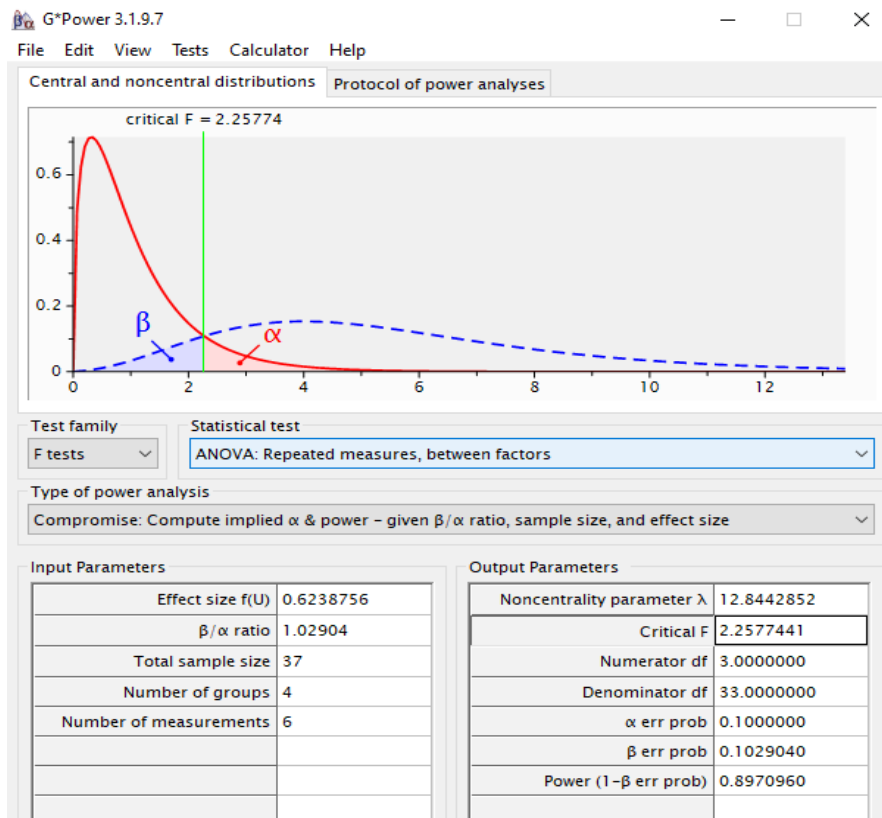


Figure S2 - Calculation of n (G*Power software).

Supplementary material
Selection of participants of the study.

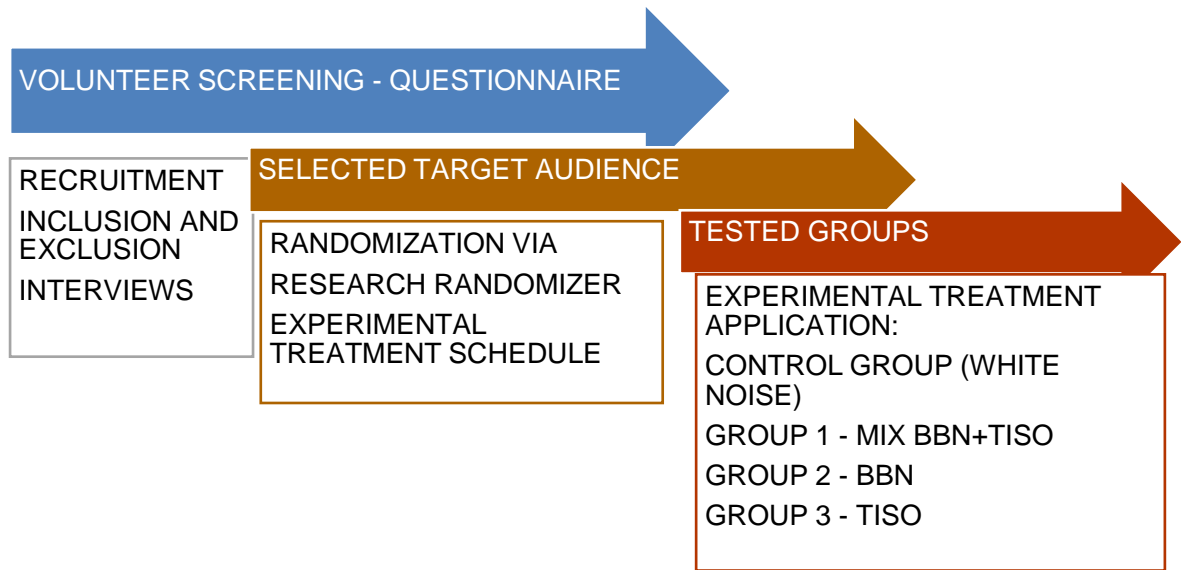


Figure S3 - Selection of participants of the study.