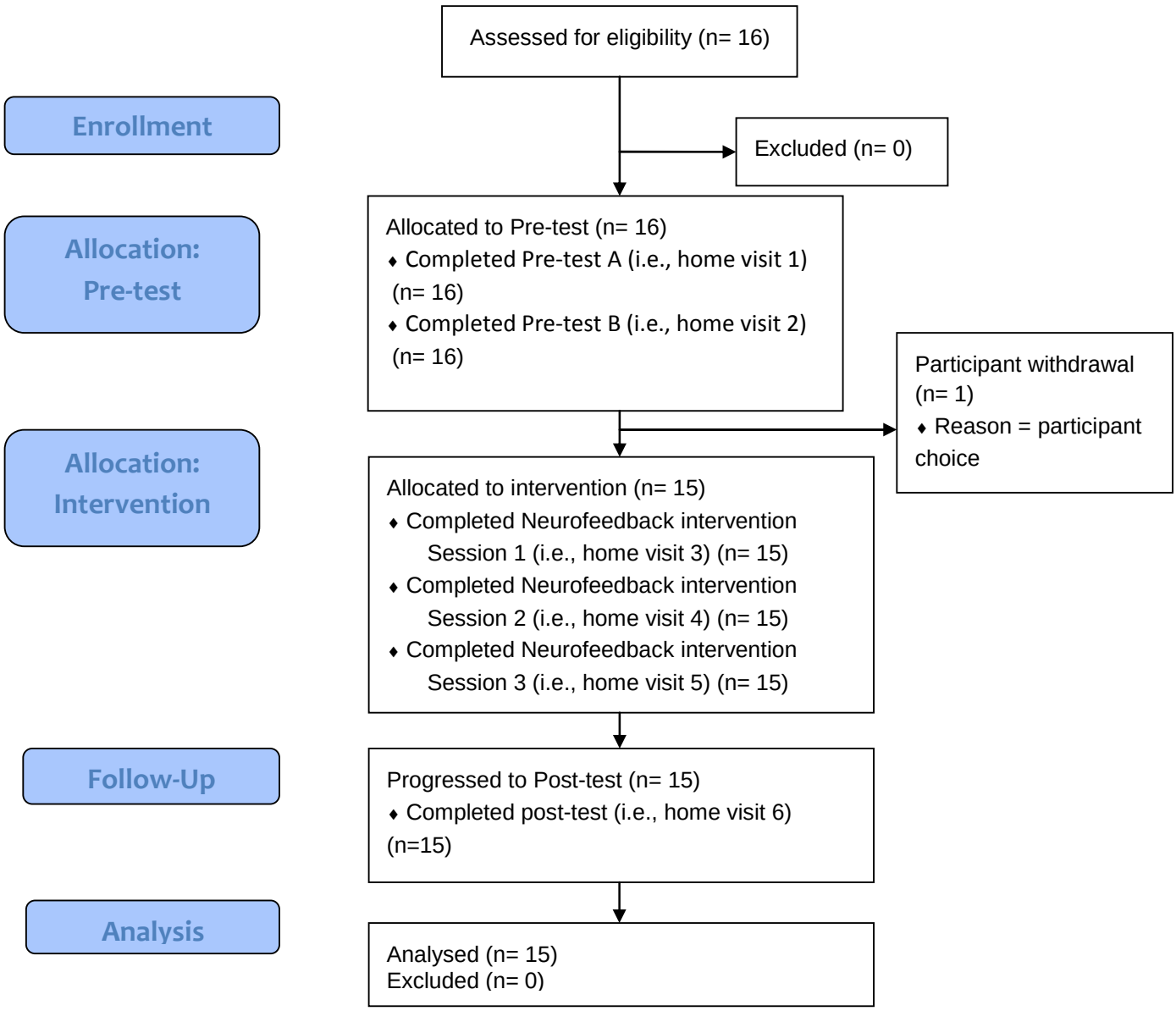
Participant Flow



Baseline Characteristics

Sex	Male = 10[1] Female = 6	
Age	Mean = 67.31 years	SD = 9.77 years
Age Diagnosed with Parkinson's	Mean = 62.25 years	SD = 10.54 years
Participant on Levadopa medication	Yes = 14 No = 2	
Minutes since last Levadopa dose	Mean = 112.86 mins	SD = 56.32 mins
Hoehn and Yahr Stage	Stage 1 *N* = 5 Stage 2 *N* = 11 Mean = 1.69	 SD = 0.48

[1] Note 1 male participant withdrew after Baseline testing, final sample analysed = 9 males and 6 females

Outcome Measures

Primary

	Intervention session 1 Mean (SD)	Intervention session 2 Mean (SD)	Intervention session 3 Mean (SD)	*F*(2,28)	η_p^2
Cortical activity during neurofeedback intervention[1]	342.40 (25.90)	308.13 (55.46)	294.67 (28.87)	7.29**	.34

Note: [1] **Cortical activity during neurofeedback intervention was measured by recording the number of times the neurofeedback tone was silenced. Higher numbers indicate better control of cortical activity. Note the thresholds were modified to increase neurofeedback difficultly across sessions. ** *p* <.01**

	Pre-test A Mean (SD)	Pre-test B Mean (SD)	Post-test Mean (SD)	*F*(2,28)	η_p^2
Grip force accuracy (% MVC)[1]	-0.72 (1.15)	-0.60 (0.97)	-0.31 (0.20)	2.30	.14
Movement Planning and Response Time (ms)	658.67 (108.88)	628.00 (159.43)	564.00 (147.59)	3.33*	.19
MDS-UPDRS Parkinson's Motor Exam	22.20 (14.81)	28.73 (15.22)	30.07 (11.99)	7.74**	.36
MDS-UPDRS Parkinson's Motor Experience of Daily Living	11.00 (9.10)	9.80 (7.59)	9.53 (7.10)	1.46	.09

Note: [1] **Grip force accuracy reported as an error score. Target grip force was 10% MVC. Smaller error scores indicate better performance. ** *p*<.01, * *p*<.05**

Outcome Measures

Secondary

Qualitative analyses of participant acceptability

Did you notice any benefits of the Neurofeedback Training?		
Response	Theme	Comments
Yes (*N* = 8)	Improved Walking (*N* = 3)	I am walking better but maybe it's just a general health improvement. I use it before stressful things like a long drive to calm things down.
		I am better at extending my fingers, and I'm walking better.
		I think it helped my walking (but in some cases it made freezing worse).
	Greater Psychological Control (*N* = 3)	It made me more mindful, similar to tai-chi.
		Maybe it helped my concentration.
		I have more persistence/endurance on tasks.
	Improved Motor Control (*N* = 3)	It has helped finer movements like doing buttons up, putting make up on, painting (but not writing).
		It has helped my snooker and when chopping food.
		It has helped my writing (consistent size) and my speech (more saliva).
No (*N* = 7)		

Would you recommend this type of training to other people with Parkinson's?	
Response	Example comments
Yes (*N* = 13)	It is good to find non-pharmacological treatments, it empowers you.
	It is fun.
	Having visual and auditory feedback is highly useful.
	It is interesting.
	Controlling the alpha makes you able to control the subconscious.
	It works for me.
Undecided (*N* = 1)	
No (*N* = 1)	

Adverse Events

Serious Adverse Events

There were no serious adverse events during this trial

Non-serious Adverse Events

As our experiment involved several home visits over a period of weeks, it is unsurprising that some participants reported some unfavorable medical occurrences during the period they were involved in the trial. Non-serious adverse events were reported on 4 out of the 92 home visits (i.e., 4%). None of these events were deemed attributable to the participant's involvement in the research.

Adverse Event	Frequency of Occurrence	Related to the Trial
Localized skin rash	1	No
Recovering from urinary tract infection	1	No
Bruised Leg after earlier fall in home	1	No
Sore arm after earlier physiotherapy session	1	No