

Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Treatment Assignment by Clinical Center

Clinic	Standard of Care		Partial TRT		TRT		TOTAL	
	N (%)		N (%)		N (%)		N (%)	
Patients randomized	49	(100.0)	51	(100.0)	51	(100.0)	151	(100.0)
BETH	7	(14.3)	8	(15.7)	8	(15.7)	23	(15.2)
PEND	2	(4.1)	2	(3.9)	3	(5.9)	7	(4.6)
PORT	11	(22.4)	11	(21.6)	11	(21.6)	33	(21.9)
SAND	7	(14.3)	7	(13.7)	8	(15.7)	22	(14.6)
TRAV	9	(18.4)	10	(19.6)	9	(17.6)	28	(18.5)
WILF	13	(26.5)	13	(25.5)	12	(23.5)	38	(25.2)

BETH: Walter Reed National Military Medical Center

PEND: Naval Hospital Camp Pendleton

PORT: Naval Medical Center Portsmouth

SAND: Naval Medical Center San Diego

TRAV: David Grant Medical Center, Travis Air Force Base

WILF: Wilford Hall Ambulatory Surgical Center

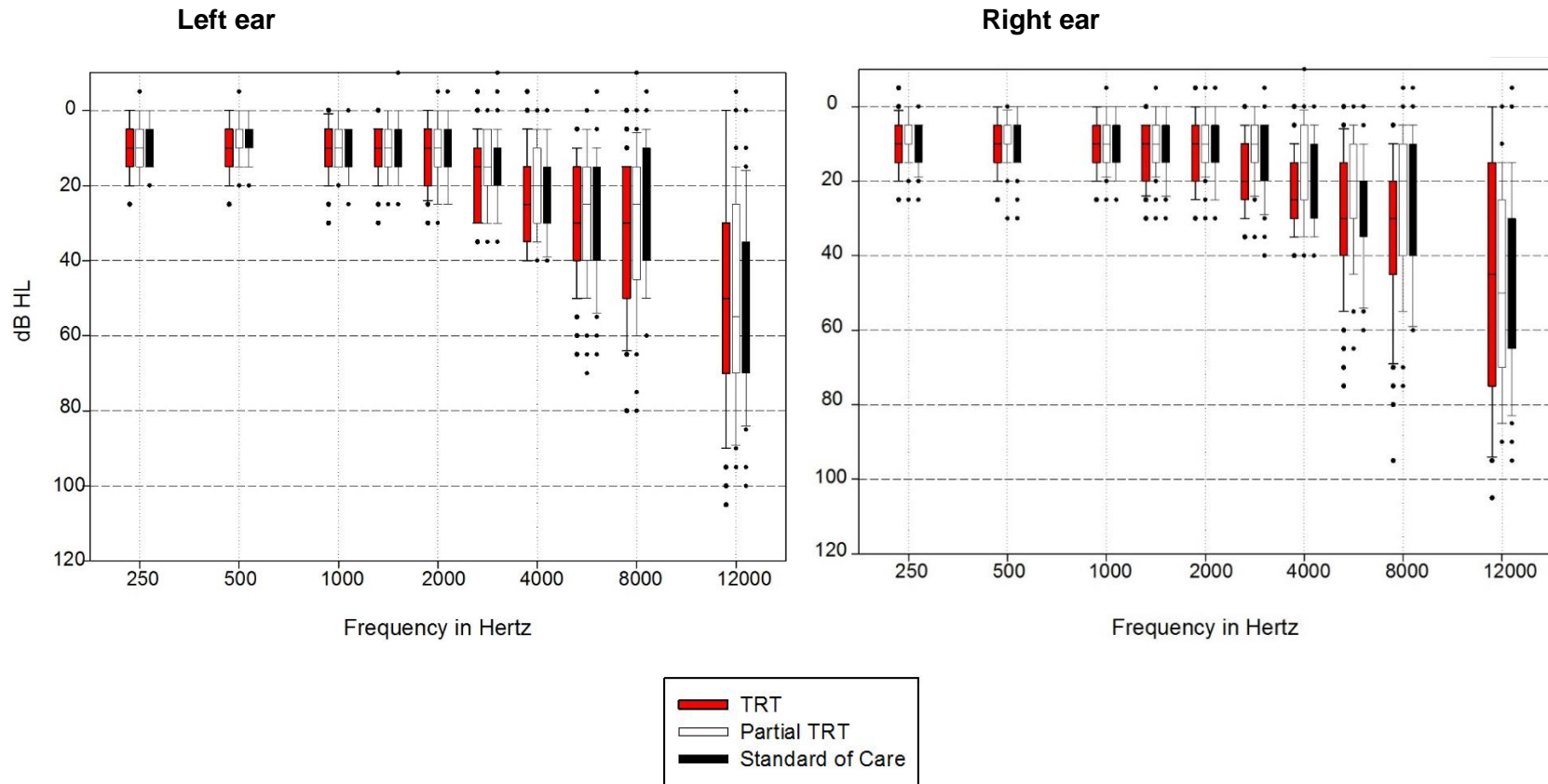
eTable 2. Treatment Adherence by Treatment Group

Characteristic	SoC	Partial TRT	TRT
N	46	51	49
	N (%)	N (%)	N (%)
Counseling session < 1 hour	6 (13.0)	5 (9.8)	7 (14.3)
Counseling session ≥ 1 hour but < 2 hours	38 (82.6)	42 (82.4)	33 (67.3)
Counseling session ≥2 hours	2 (4.3)	4 (7.8)	9 (18.4)
N	42	45	43
Use environmental sound device on regular basis or sound generator usually worn on regular basis	37 (88.1)	37 (82.2)	35 (81.4)
Use enriched background sound at night	33 (78.6)	24 (53.3)	27 (62.8)
Use enriched background sound during day	23 (54.8)	15 (33.3)	24 (55.8)

eFigure 1. Hearing Thresholds

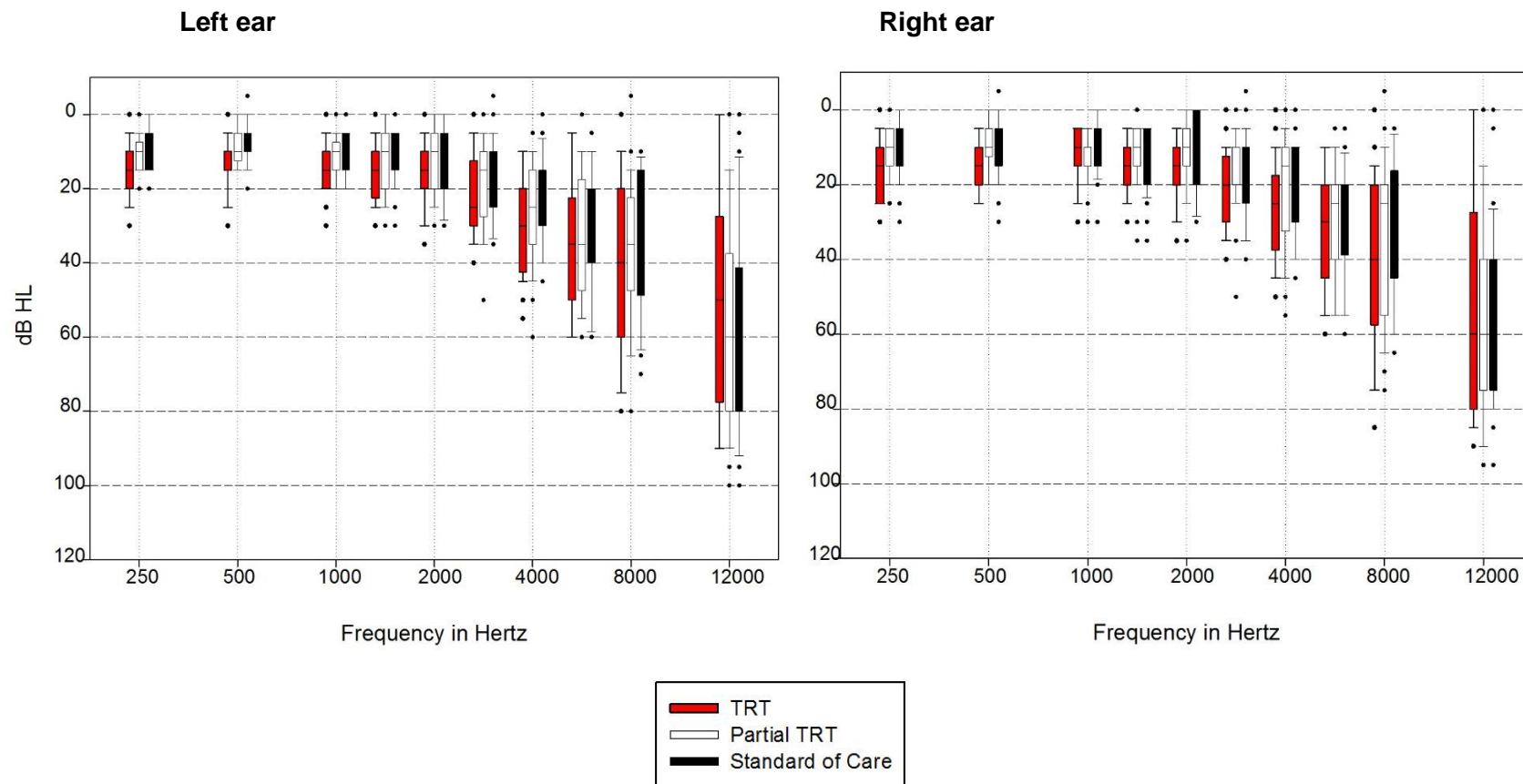
A, Hearing thresholds at baseline by ear and treatment group

Box plots showing median, 10th, 25th, 75th, and 90th percentiles. Box boundaries show 25th and 75th percentiles and whiskers show 10th and 90th percentiles. Outliers shown as circles above and below box.



B, Hearing thresholds at 18 months' follow-up by ear and treatment group

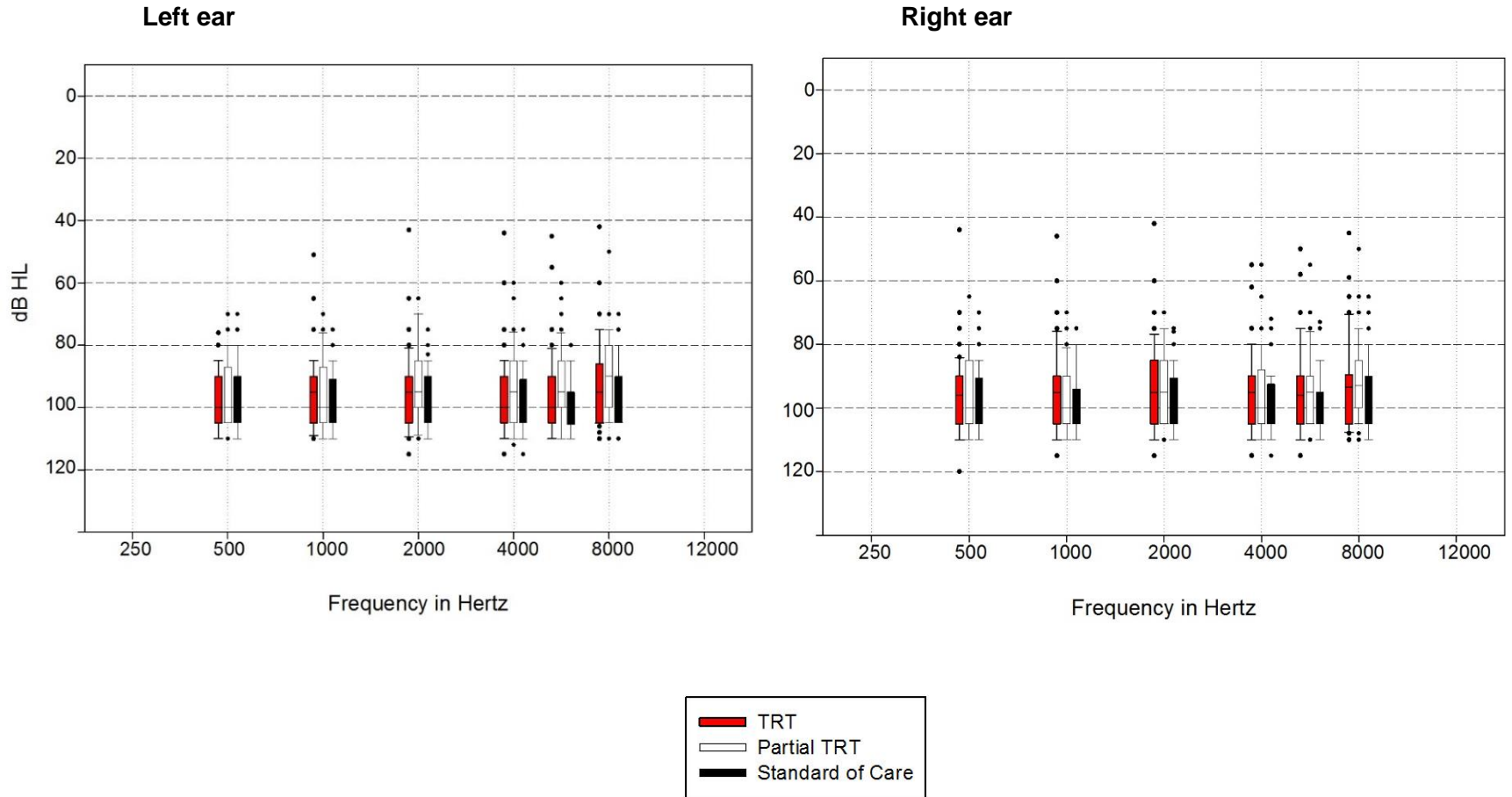
Box plots showing median, 10th, 25th, 75th, and 90th percentiles. Box boundaries show 25th and 75th percentiles and whiskers show 10th and 90th percentiles. Outliers shown as circles above and below box.



eFigure 2. Loudness Discomfort Levels

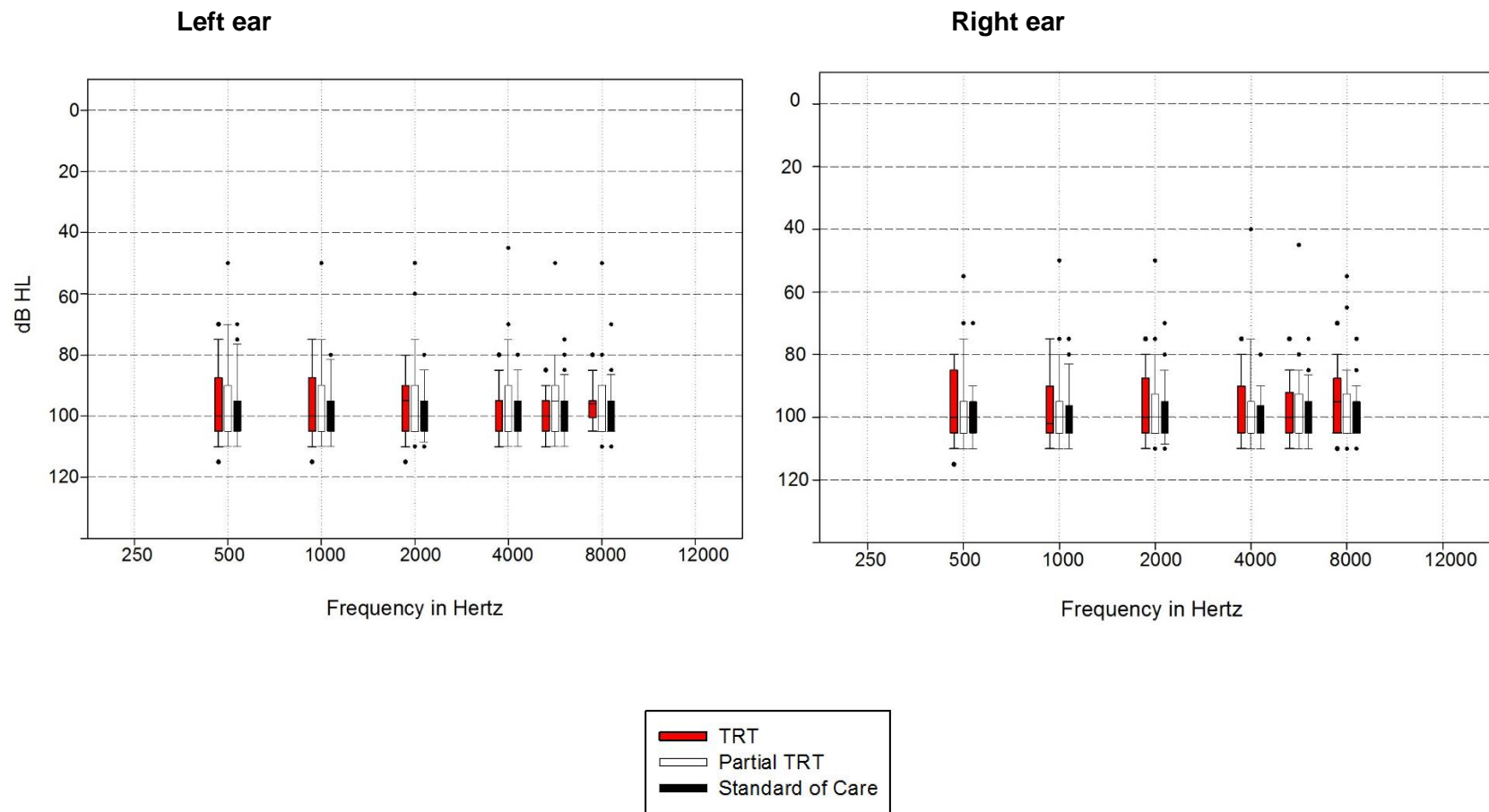
A, Loudness discomfort levels at baseline by ear and treatment group

Box plots showing median, 10th, 25th, 75th, and 90th percentiles. Box boundaries show 25th and 75th percentiles and whiskers show 10th and 90th percentiles. Outliers shown as circles above and below box.



B, Loudness discomfort levels at 18 months' follow-up by ear and treatment group

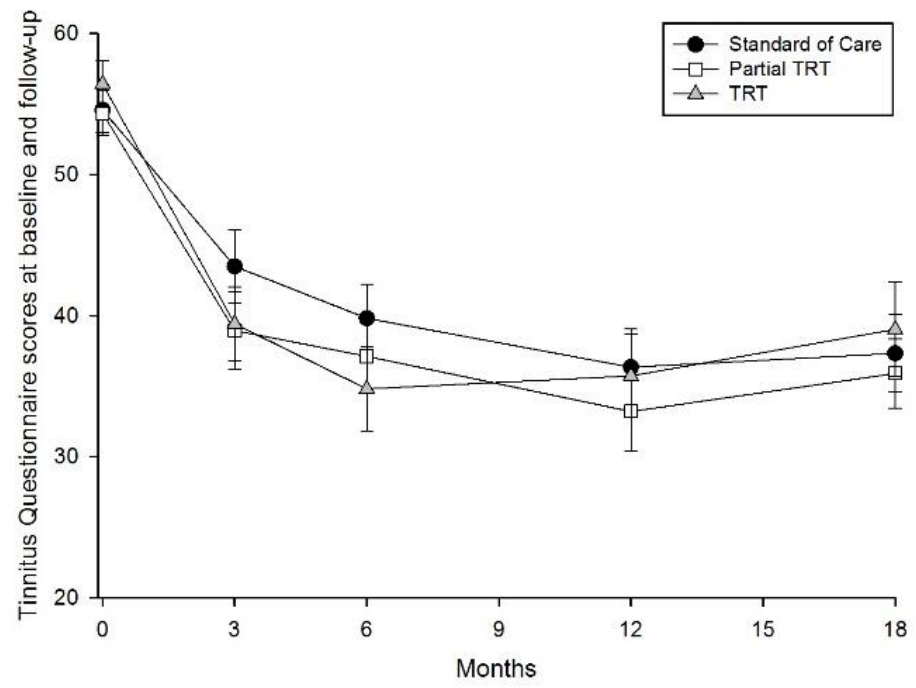
Box plots showing median, 10th, 25th, 75th, and 90th percentiles. Box boundaries show 25th and 75th percentiles and whiskers show 10th and 90th percentiles. Outliers shown as circles above and below box.



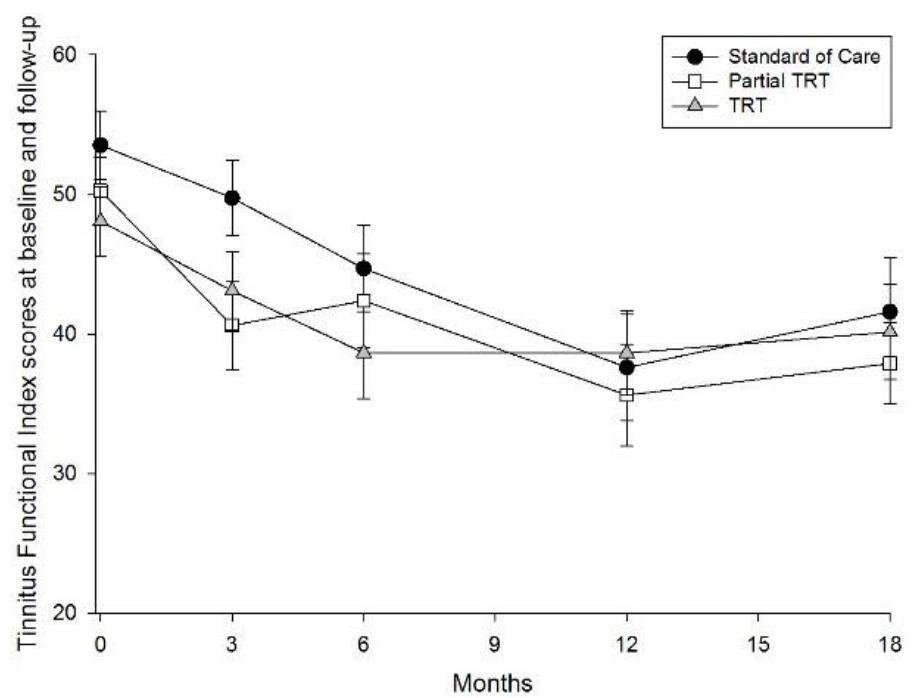
eFigure 3. Tinnitus Questionnaire, Tinnitus Functional Index, Tinnitus Handicap Inventory, and 10-Point VAS Scores by Visit and Treatment Group

Data points shown are means \pm SE of values at baseline and follow-up.

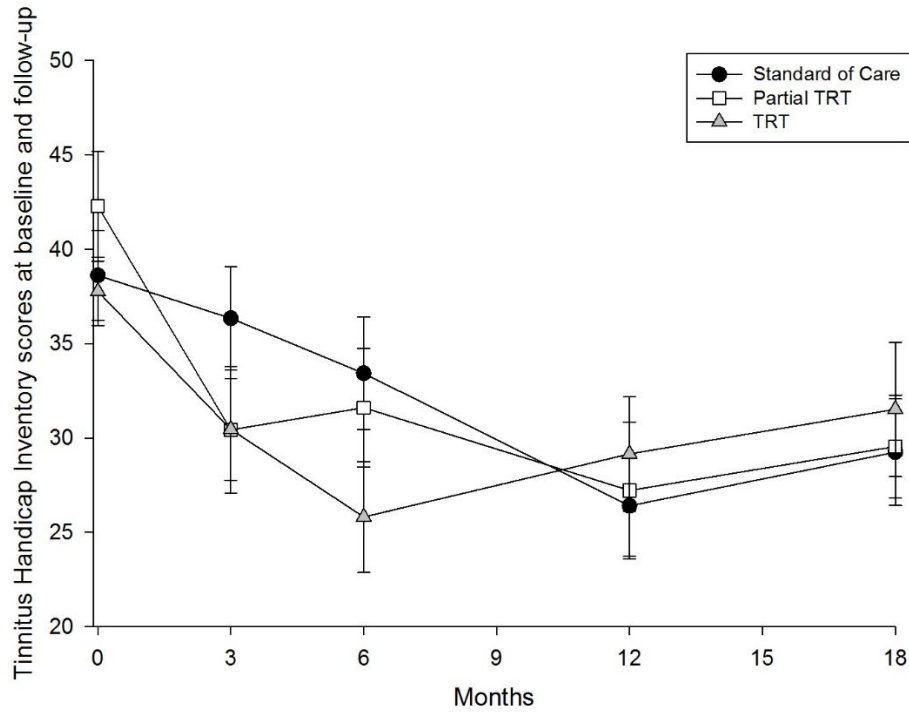
A. Tinnitus Questionnaire.



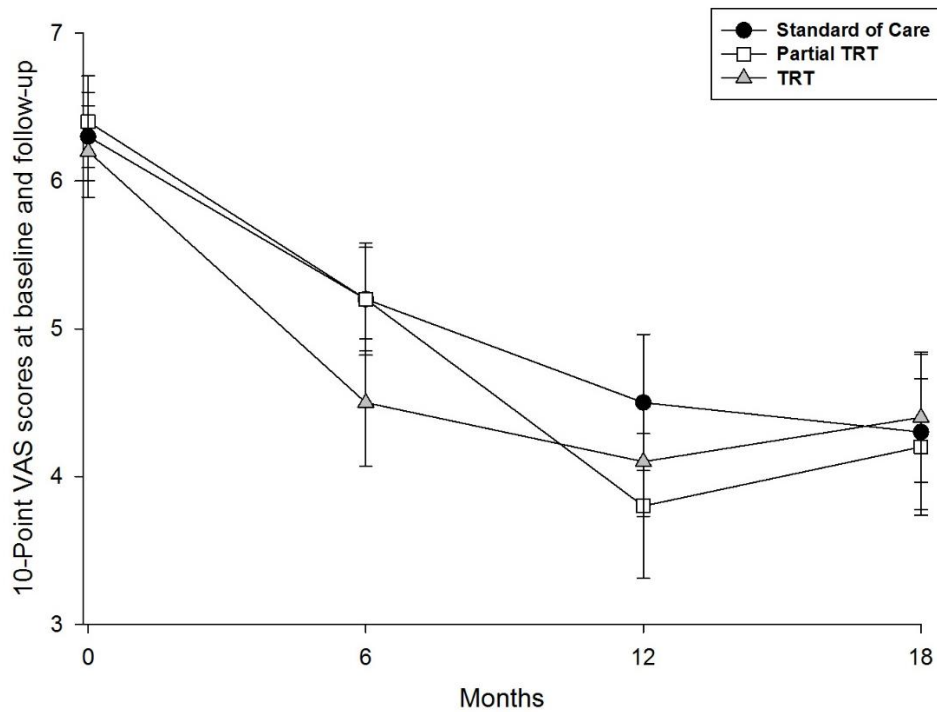
B. Tinnitus Functional Index



C. Tinnitus Handicap Inventory



D. 10-Point VAS on Tinnitus Problem



eTable 3. Digital Symbol Substitution Test by Visit and Treatment Group

Visit	Baseline	6 month	18 month
SoC (n)	49	39	32
Partial TRT (n)	51	35	30
TRT (n)	51	31	29
Standard of Care:	Mean (SD)	Mean (SD)	Mean (SD)
No. items attempted	55.3 (16.8)	59.8 (23.2)	62.4 (18.4)
Percent items completed	98.8 (7.2)	93.2 (16.8)	95.1 (15.0)
Partial TRT:			
No. items attempted	55.9 (18.7)	62.4 (18.4)	61.2 (20.1)
Percent items completed	97.5 (10.1)	95.1 (14.5)	93.0 (17.6)
TRT:			
No. items attempted	59.0 (16.6)	56.6 (12.8)	62.7 (28.5)
Percent items completed	97.7 (10.1)	98.0 (9.0)	94.4 (15.4)

eTable 4. Hearing Handicap Inventory by Visit and Treatment Group

Visit	Baseline	6 month	18 month
SoC (n)	49	39	33
Partial TRT (n)	51	36	32
TRT (n)	51	31	29
Total score (scale 0 to 40)	Mean (SD)	Mean (SD)	Mean (SD)
SoC	13.3 (10.0)	11.1 (9.6)	12.8 (10.9)
Partial TRT	14.5 (9.5)	13.2 (9.5)	10.1 (8.2)
TRT	12.6 (9.5)	11.3 (8.2)	13.7 (10.7)
Emotional subscale (scale 0 to 20)			
SoC	5.6 (5.0)	4.9 (4.7)	5.2 (5.3)
Partial TRT	5.8 (4.5)	5.5 (4.6)	3.7 (3.9)
TRT	5.4 (5.0)	4.6 (4.0)	5.7 (5.5)
Social subscale (scale 0 to 20)			
SoC	7.6 (5.6)	6.2 (5.6)	7.6 (6.2)
Partial TRT	8.7 (5.7)	7.7 (5.6)	6.4 (5.0)
TRT	7.2 (5.4)	6.6 (5.1)	7.9 (6.2)

eTable 5. State-Trait Inventory by Visit and Treatment Group

Visit	Baseline	6 month	18 month
SoC (n)	49	39	33
Partial TRT (n)	51	35	33
TRT (n)	51	32	29
State subscale (scale 0 to 80)	Mean (SD)	Mean (SD)	Mean (SD)
SoC	32.2 (10.4)	34.9 (11.4)	33.6 (9.8)
Partial TRT	33.6 (12.1)	32.9 (12.3)	31.2 (11.1)
TRT	30.7 (9.3)	28.5 (9.9)	30.1 (8.7)
Trait subscale (scale 0 to 80)			
SoC	33.5 (8.9)	--	--
Partial TRT	35.0 (10.3)	--	--
TRT	31.6 (8.9)	--	--

eTable 6. Positive and Negative Affect Scale by Visit and Treatment Group

Visit	Baseline	6 month	18 month
SoC (n)	49	39	33
Partial TRT (n)	51	35	33
TRT (n)	51	32	29
Positive subscale (scale 0 to 80)	Mean (SD)	Mean (SD)	Mean (SD)
SoC	38.9 (5.0)	36.9 (7.1)	38.5 (4.7)
Partial TRT	36.3 (7.4)	38.2 (7.9)	38.4 (5.7)
TRT	36.9 (7.5)	36.6 (10.0)	38.0 (6.4)
Negative subscale (scale 0 to 80)			
SoC	16.0 (5.6)	17.2 (8.2)	16.0 (6.8)
Partial TRT	15.1 (5.2)	13.8 (4.6)	13.6 (2.1)
TRT	16.3 (6.0)	15.6 (7.5)	16.1 (7.5)

eTable 7. Beck Depression Inventory by Visit and Treatment Group

Visit	Baseline	3 month	6 month	12 month	18 month
SoC (n)	49	41	38	28	33
Partial TRT (n)	51	38	35	27	32
TRT (n)	51	40	31	32	29
Total Score (scale 0 to 7)					
Standard of Care:					
Median	1	1	1	0	1
1rst, 3 rd quartiles	0, 3	0, 3	0, 3	0, 1	0, 2
Mean (S.D.)	1.8 (2.3)	1.5 (1.7)	2.1 (2.4)	1.1 (1.8)	1.5 (1.7)
Partial TRT:					
Median	1	0.5	0	0	0
1rst, 3 rd quartiles	0, 3	0, 3	0, 4	0, 1	0, 1.5
Mean (S.D.)	2.0 (2.7)	1.9 (2.9)	2.0 (3.1)	1.5 (3.3)	1.5 (2.8)
TRT:					
Median	1	0.5	0	0	1
1rst, 3 rd quartiles	0, 3	0, 2	0, 2	0, 1.5	0, 2
Mean (S.D.)	1.5 (2.1)	1.3 (1.9)	1.2 (1.9)	1.2 (2.7)	1.3 (1.6)
Global score \geq 4, n (%)					
Standard of Care:	10 (20.4)	4 (9.8)	9 (23.7)	3 (10.7)	5 (15.2)
Partial TRT	9 (17.6)	7 (18.4)	10 (28.6)	4 (14.8)	5 (15.6)
TRT	7 (13.7)	5 (12.5)	4 (12.9)	3 (9.4)	2 (6.9)

eTable 8. Comparison of Overall Change in TQ, TFI, and THI Total and Subscale Scores in Partial TRT and TRT Groups With Overall Change in SoC Group Using Full Case Population

	Partial TRT	TRT
A. Tinnitus Questionnaire	Estimate (95% CI)	Estimate (95% CI)
Total score	1.31 (-5.26 to 7.88)	-2.50 (-9.03 to 4.02)
Emotional distress	0.87 (-1.69 to 3.42)	-0.05 (-2.78 to 2.69)
Intrusiveness	0.74 (-0.53 to 2.00)	-0.08 (-1.28 to 1.11)
Auditory perceptual difficulties	0.62 (-0.57 to 1.81)	-0.50 (-1.52 to 0.53)
Sleep disturbance	-0.59 (-1.40 to 0.23)	-0.51 (-1.33 to 0.31)
Somatic complaint	-0.29 (-0.54 to 1.13)	-0.06 (-0.81 to 0.68)
B. Tinnitus Functional Index		
Total score	2.26 (-5.26 to 9.79)	2.42 (-4.41 to 9.26)
Emotional distress	-3.19 (-12.91 to 6.52)	-4.83 (-12.79 to 3.13)
Intrusiveness	1.35 (-7.45 to 10.15)	-2.56 (-11.43 to 6.32)
Reduced sense of control	5.30 (-4.06 to 14.66)	4.60 (-5.10 to 14.30)
Cognitive interference	-2.31 (-12.35 to 7.74)	-2.75 (-10.85 to 5.34)
Sleep disturbance	-13.28 (-25.56 to -1.01)	-9.76 (-25.40 to 5.89)
Auditory difficulties	2.68 (-8.57 to 13.93)	2.54 (-8.65 to 13.72)
Relaxation interference	-6.32 (-17.39 to 4.75)	-4.31 (-14.34 to 5.73)
Reduced quality of life	-2.31 (-10.56 to 5.94)	-2.21 (-9.90 to 5.47)
C. Tinnitus Handicap Inventory		
Total score	-2.10 (-8.72 to 4.51)	-1.52 (-7.92 to 4.87)
Functional	-3.12 (-6.81 to -0.56)	-2.70 (-5.73 to 0.35)
Emotional	0.92 (-1.53 to 3.37)	0.37 (-2.06 to 2.80)
Catastrophic	0.10 (-1.44 to 1.64)	0.81(-0.86 to 2.47)

^a p = 0.0339

Models included only participants who completed all study visits (full case analysis). Models were run using repeated measures Generalized Estimating Equations, exchangeable covariance structure and adjusted for visit, clinical center, age group, gender, baseline State Trait Anxiety Inventory, and baseline Positive and Negative Affect Schedule.