

Table S24

Multiple Sclerosis: Study Design Details and Participant Characteristics for Expiratory Muscle Strength Training as a Treatment Modality

Source	N	Study design	Sex (% female)	Age range (years)	Dysarthria type	Inclusion/exclusion criteria	Inferential statistics	Power analysis	Control group	Baseline data collected	Control intervention	Number of treatment sessions	Mode of treatment delivery	Home exercise plan	Patient-reported outcomes	Treatment effect size
Chiara et al. ⁵	17	Prospective; quasi-experimental	82.0%	Mean = 48.9	NR	Inclusion 1, 2: <ul style="list-style-type: none"> • 20-59 years old • No smoking in the past 5 years (ex-smokers: FEV₁/FVC > 75%) • No prior speech/voice therapy • Diagnosis of MS per Poser's criteria • Mild (1-3.5) to moderate (4-6.5) disability per the EDSS • No disease exacerbation in past 3 months • Sufficient facial muscle strength to maintain lip closure around mouthpiece Exclusion: <ul style="list-style-type: none"> • NR 	Yes	No	Yes	Yes – single baseline	No	8 sessions with an investigator and 32 sessions at home	In person, individual	Yes	Yes	No

Note. NR, not reported. FEV₁/FVC, forced expiratory volume in the first second over forced vital capacity. EDSS, Expanded Disability Status Scale. Inclusion criteria: ¹No cardiac, pulmonary, orthopedic, or other neurological conditions than multiple sclerosis; ²Native English speakers.