

Supplementary material to article by A. K. Ramachandran et al. "Effects of muscle strengthening and cardiovascular fitness activities for poliomyelitis survivors: A systematic review and meta-analysis"

Table SV (A-Q). Sensitivity analyses

(A) Sensitivity analysis for combined interventions in the overall body function domain.

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Agre et al. 1996 (44)	0.307	0.195	0.420	<0.01	103.40	21	<0.01	80
Agre et al. 1997 (45)	0.297	0.183	0.411	<0.01	106.35	21	<0.01	80
Bertelsen et al. 2009 (28)	0.320	0.197	0.444	<0.01	104.58	21	<0.01	80
Brogardh et al. 2010 (46)	0.306	0.193	0.419	<0.01	104.45	21	<0.01	80
Chan et al. 2003 (33)	0.276	0.168	0.385	<0.01	97.08	21	<0.01	78
Da Silva et al. 2019a (37)	0.298	0.184	0.411	<0.01	106.48	21	<0.01	80
Da Silva et al. 2019b (37)	0.293	0.180	0.406	<0.01	105.44	21	<0.01	80
Davidson et al. 2009 (29)	0.295	0.179	0.411	<0.01	105.84	21	<0.01	80
Dean et al. 1991 (25)	0.284	0.172	0.397	<0.01	100.09	21	<0.01	79
Einarsson 1991 (35)	0.301	0.186	0.417	<0.01	106.14	21	<0.01	80
Ernstoff et al. 1996 (30)	0.252	0.150	0.353	<0.01	96.23	21	<0.01	78
Fillyaw et al. 1991 (36)	0.270	0.168	0.371	<0.01	93.03	21	<0.01	77
Jones et al. 1989 (47)	0.279	0.167	0.390	<0.01	101.87	21	<0.01	79
Koopman et al. 2016 (3)	0.324	0.201	0.447	<0.01	100.63	21	<0.01	79
Kriz et al. 1992 (26)	0.296	0.183	0.408	<0.01	106.08	21	<0.01	80
Murray et al. 2017 (4)	0.290	0.177	0.403	<0.01	106.50	21	<0.01	80
Oncu et al. 2009 (48)	0.291	0.189	0.392	<0.01	77.92	21	<0.01	73
Sharma et al. 2014 (32)	0.287	0.174	0.399	<0.01	103.48	21	<0.01	80
Skough et al. 2008 (38)	0.289	0.178	0.401	<0.01	104.76	21	<0.01	80
Spector et al. 1996 (39)	0.303	0.190	0.415	<0.01	105.87	21	<0.01	80
Voorn et al. 2016 (49)	0.302	0.189	0.414	<0.01	106.12	21	<0.01	80
Willen et al. 2001 (8)	0.315	0.197	0.433	<0.01	105.17	21	<0.01	80
Murray et al. 2016 (4)	0.323	0.214	0.432	<0.01	90.40	21	<0.01	77

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(B) Sensitivity analysis for aerobic interventions in the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Dean et al. 1991 (25)	0.489	0.210	0.768	<0.01	27.598	4	<0.01	85
Jones et al. 1989 (47)	0.531	0.211	0.850	<0.01	29.530	4	<0.01	86
Kriz et al. 1992 (26)	0.580	0.305	0.854	<0.01	22.930	4	<0.01	83
Murray et al. 2017 (4)	0.570	0.278	0.862	<0.01	25.326	4	<0.01	84
Oncu et al. 2009a (48)	0.374	0.216	0.532	<0.01	9.319	4	0.05	57
Oncu et al. 2009b (48)	0.502	0.224	0.780	<0.01	28.994	4	<0.01	86

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(C) Sensitivity analysis for mixed interventions in the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Bertelsen et al. 2009 (28)	0.238	0.045	0.431	0.02	28.272	5	<0.01	82
Davidson et al. 2009 (29)	0.199	0.037	0.362	0.02	26.195	5	<0.01	81
Ernstoff et al. 1996 (30)	0.138	0.027	0.248	0.01	11.333	5	0.05	56
Koopman et al. 2016 (3)	0.248	0.055	0.441	0.01	27.272	5	<0.01	82
Voorn et al. 2016 (49)	0.237	0.065	0.410	0.01	28.104	5	<0.01	82
Willen et al. 2001 (8)	0.267	0.116	0.418	<0.01	18.846	5	<0.01	73

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(D) Sensitivity analysis for strengthening interventions in the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Agre et al. 1996 (44)	0.347	0.127	0.566	<0.01	26.128	8	<0.01	69
Agre et al. 1997 (45)	0.309	0.078	0.539	0.01	29.999	8	<0.01	73
Brogardh et al. 2010 (46)	0.343	0.122	0.563	<0.01	27.544	8	<0.01	71
Chan et al. 2002 (33)	0.241	0.049	0.433	0.01	20.349	8	0.01	61
Da Silva et al. 2019a (37)	0.312	0.086	0.538	0.01	30.089	8	<0.01	73
Da Silva et al. 2019b (37)	0.292	0.069	0.515	0.01	29.131	8	<0.01	73
Einarsson 1991 (35)	0.330	0.086	0.574	0.01	29.358	8	<0.01	73
Fillyaw et al. 1991 (36)	0.234	0.073	0.395	<0.01	16.709	8	0.03	52
Skough et al. 2008 (38)	0.330	0.110	0.550	<0.01	29.318	8	<0.01	73
Spector et al. 1996 (39)	0.326	0.106	0.546	<0.01	29.609	8	<0.01	73

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

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(E) Sensitivity analysis for all interventions in the lower limb component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Agre et al. 1996 (44)	0.185	0.064	0.306	<0.01	24.554	11	0.01	55
Agre et al. 1997 (45)	0.174	0.053	0.295	<0.01	25.163	11	<0.01	56
Brogargh et al. 2010 (46)	0.185	0.064	0.306	<0.01	24.952	11	<0.01	56
Dean et al. 1991 (25)	0.147	0.047	0.247	<0.01	23.780	11	0.01	54
Einarsson 1991 (35)	0.178	0.054	0.301	<0.01	25.919	11	<0.01	58
Ernstoff et al. 1996 (30)	0.197	0.050	0.343	<0.01	25.754	11	<0.01	57
Fillyaw et al. 1991 (36)	0.140	0.050	0.230	<0.01	10.572	11	0.48	0
Jones et al. 1989 (47)	0.163	0.044	0.282	<0.01	24.073	11	0.01	54
Koopman et al. 2016 (3)	0.210	0.067	0.354	<0.01	25.930	11	<0.01	58
Skough et al. 2008 (38)	0.182	0.062	0.302	<0.01	25.793	11	<0.01	57
Spector et al. 1996 (39)	0.175	0.057	0.294	<0.01	25.741	11	<0.01	57
Voorn et al. 2016 (49)	0.176	0.049	0.303	<0.01	25.494	11	<0.01	57
Willen et al. 2001 (8)	0.225	0.105	0.344	<0.01	22.710	11	0.02	52

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(F) Sensitivity analysis for mixed interventions in the lower limb component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Dean et al. 1991 (25)	0.114	0.001	0.226	0.05	2.842	3	0.42	0
Ernstoff et al. 1996 (30)	0.134	-0.062	0.330	0.18	4.534	3	0.21	34
Koopman et al. 2016 (3)	0.162	-0.027	0.351	0.09	5.259	3	0.15	43
Voorn et al. 2016 (49)	0.127	-0.028	0.281	0.11	4.574	3	0.21	34
Willen et al. 2001 (8)	0.203	0.061	0.345	0.01	2.335	3	0.51	0

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(G) Sensitivity analysis for strengthening interventions in the lower limb component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Agre et al. 1996 (44)	0.296	0.014	0.577	0.04	16.733	5	0.01	70
Agre et al. 1997 (45)	0.235	-0.049	0.519	0.10	17.887	5	<0.01	72
Brogargh et al. 2010 (46)	0.291	0.011	0.571	0.04	17.280	5	<0.01	71
Einarsson 1991 (35)	0.275	-0.042	0.592	0.09	18.597	5	<0.01	73
Fillyaw et al. 1991 (36)	0.123	0.001	0.244	0.05	3.249	5	0.66	0
Skough et al. 2008 (38)	0.267	-0.001	0.536	0.05	18.368	5	<0.01	73
Spector et al. 1996 (39)	0.229	-0.025	0.482	0.08	18.409	5	<0.01	73

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(H) Sensitivity analysis for all interventions in the non-lower limb component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Chan et al. 2002 (2003)	0.428	0.283	0.574	<0.01	16.440	3	<0.01	82
Ernstoff et al. 1996 (30)	0.266	0.083	0.449	<0.01	7.701	3	0.05	61
Kriz et al. 1992 (26)	0.474	0.319	0.629	<0.01	18.092	3	<0.01	83
Murray et al. 2017 (4)	0.698	0.485	0.912	<0.01	10.354	3	0.02	71
Spector et al. 1996 (39)	0.511	0.377	0.644	<0.01	14.170	3	<0.01	79

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(I) Sensitivity analysis for all interventions in the cardiovascular component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Dean et al. 1991 (25)	0.077	-0.078	0.232	0.33	21.683	6	<0.01	72
Jones et al. 1989 (47)	0.060	-0.103	0.223	0.47	19.164	6	<0.01	69
Koopman et al. 2016 (3)	0.184	-0.010	0.378	0.06	25.032	6	<0.01	76
Kriz et al. 1992 (26)	0.104	-0.052	0.260	0.19	25.848	6	<0.01	77
Oncu et al. 2009a (48)	0.103	-0.041	0.247	0.16	20.044	6	<0.01	70
Oncu et al. 2009b (48)	0.136	-0.011	0.284	0.07	24.462	6	<0.01	75
Voorn et al. 2016 (49)	0.078	-0.087	0.242	0.36	25.480	6	<0.01	76
Willen et al. 2001 (8)	0.178	0.029	0.327	0.02	17.691	6	0.01	66

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

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(J) Sensitivity analysis for aerobic interventions in the cardiovascular component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Dean et al. 1991 (29)	0.319	-0.008	0.645	0.06	10.675	3	0.01	72
Jones et al. 1989 (47)	0.366	-0.056	0.789	0.09	11.342	3	0.01	74
Kriz et al. 1992 (26)	0.461	0.125	0.798	0.01	7.664	3	0.05	61
Oncu et al. 2009a (48)	0.297	0.047	0.548	0.02	8.217	3	0.04	63
Oncu et al. 2009b (48)	0.441	0.171	0.711	<0.01	9.461	3	0.02	68

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(K) Sensitivity analysis for mixed interventions in the cardiovascular component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Koopman et al. 2016 (3)	-0.008	-0.283	0.268	0.96	2.725	1	0.10	63
Voorn et al. 2016 (49)	-0.092	-0.299	0.115	0.38	0.696	1	0.40	0
Willen et al. 2001 (8)	0.095	-0.083	0.273	0.30	0.238	1	0.63	0

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(L) Sensitivity analysis for all interventions in the mental and sensory component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Bertelsen et al. 2009 (28)	0.364	0.200	0.529	<0.01	36.612	8	<0.01	78
Da Silva et al. 2019a (37)	0.249	0.140	0.358	<0.01	40.391	8	<0.01	80
Da Silva et al. 2019b (37)	0.235	0.126	0.344	<0.01	39.466	8	<0.01	80
Davidson et al. 2009 (29)	0.221	0.118	0.323	<0.01	39.897	8	<0.01	80
Dean et al. 1991 (25)	0.240	0.134	0.346	<0.01	38.997	8	<0.01	79
Koopman et al. 2016 (3)	0.352	0.200	0.505	<0.01	34.852	8	<0.01	77
Murray et al. 2017 (4)	0.283	0.180	0.386	<0.01	40.270	8	<0.01	80
Oncu et al. 2009a (48)	0.244	0.140	0.348	<0.01	17.466	8	0.03	54
Oncu et al. 2009b (48)	0.234	0.127	0.340	<0.01	32.348	8	<0.01	75
Sharma et al. 2014 (32)	0.209	0.125	0.294	<0.01	38.771	8	<0.01	79

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(M) Sensitivity analysis for aerobic interventions in the mental and sensory component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Dean et al. 1991 (25)	0.763	0.191	1.335	0.01	10.229	2	0.01	80
Murray et al. 2017 (4)	0.928	0.579	1.277	<0.01	3.531	2	0.17	43
Oncu et al. 2009a (48)	0.556	0.151	0.960	0.01	4.022	2	0.13	50
Oncu et al. 2009b (48)	0.684	0.025	1.344	0.04	10.634	2	<0.01	81

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(N) Sensitivity analysis for mixed interventions in the mental and sensory component of the overall body function domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Bertelsen et al. 2009 (28)	0.268	0.036	0.500	0.02	4.472	2	0.11	55
Davidson et al. 2009 (29)	0.163	0.049	0.277	<0.01	2.705	2	0.26	26
Koopman et al. 2016 (3)	0.271	0.068	0.473	0.01	3.685	2	0.16	46
Sharma et al. 2014 (32)	0.171	0.080	0.262	<0.01	2.233	2	0.33	10

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

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(O) Sensitivity analysis for all interventions in the combined activity and participation domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Bertelsen et al. 2009 (28)	0.125	0.054	0.196	<0.01	2.100	8	0.98	0
Brogardh et al. 2010 (46)	0.147	0.092	0.203	<0.01	1.455	8	0.99	0
Da Silva et al. 2019a (37)	0.143	0.088	0.198	<0.01	2.711	8	0.95	0
Da Silva et al. 2019b (37)	0.141	0.086	0.196	<0.01	2.402	8	0.97	0
Davidson et al. 2009 (29)	0.151	0.091	0.211	<0.01	2.294	8	0.97	0
Koopman et al. 2016 (3)	0.147	0.083	0.212	<0.01	2.669	8	0.95	0
Murray et al. 2017 (4)	0.140	0.083	0.197	<0.01	2.634	8	0.96	0
Sharma et al. 2014 (32)	0.142	0.087	0.197	<0.01	2.578	8	0.96	0
Skough et al. 2008 (38)	0.144	0.089	0.200	<0.01	2.622	8	0.96	0
Willen et al. 2001 (8)	0.143	0.087	0.198	<0.01	2.723	8	0.95	0

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(P) Sensitivity analysis for mixed interventions in the combined activity and participation domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Bertelsen et al. 2009 (28)	0.124	0.043	0.204	<0.01	0.355	3	0.95	0
Davidson et al. 2009 (29)	0.155	0.090	0.221	<0.01	0.441	3	0.93	0
Koopman et al. 2016 (3)	0.152	0.080	0.223	<0.01	0.841	3	0.84	0
Sharma et al. 2014 (32)	0.14396	0.085	0.203	<0.01	0.795	3	0.85	0
Willen et al. 2001 (8)	0.145	0.085	0.204	<0.01	0.938	3	0.82	0

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound.

(Q) Sensitivity analysis for strengthening interventions in the combined activity and participation domain

Study	Main analysis				Heterogeneity			
	Hedge's <i>g</i>	95% LB	95% UB	<i>p</i> -value	Q	df	<i>p</i> -value	I ² (%)
Brogardh et al. 2010 (46)	0.142	-0.127	0.411	0.30	0.441	2	0.80	0
Da Silva et al. 2019a (37)	0.065	-0.181	0.310	0.61	1.281	2	0.53	0
Da Silva et al. 2019b (37)	0.023	-0.223	0.270	0.85	0.476	2	0.79	0
Skough et al. 2008 (38)	0.066	-0.212	0.344	0.64	1.297	2	0.52	0

95% CI: 95% confidence interval; LB: lower bound; UB: upper bound. Due to low study number, sensitivity analyses could not be completed for aerobic interventions in the lower limb component of the body function domain (*n*=1), any individual interventions in the non-lower limb component of the body function domain (*n* ranging from 1 to 2), strengthening in the mental and sensory component of the body function domain (*n*=2), and aerobic interventions in the combined activity and participation domain (*n*=1).