

Article name: “Effectiveness and feasibility of exercise via telehealth for chronic disease: a systematic review and meta-analysis of exercise interventions delivered via videoconferencing”

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Online Material 1 Electronic database search**PubMed**

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Online Material 2 Exercise capacity and quality of life outcome measures (non-controlled trials)

Reference	Exercise Capacity		Quality of Life	
	Baseline	Intervention	Baseline	Intervention
	Baseline	Post-Intervention	Baseline	Post-Intervention
<i>Pulmonary</i>		N/A		
Burkow et. al, 2015 [21]			58 (42.7 to 60.7) ^{ab}	SGRQ (total score) 45.5 (35.6 to 61.0) ^{ab*}
Holland et. al, 2013 [23]	485.2±80.25	6MWT (m) [#] 512±95.73	74.4±27.3	CRQ (total score) [#] 81.6±20.92
Marquis et. al, 2014 [25]	364.36±73.9	6MWT (m) [#] 392.37±80.48*	4.15±0.85	CRQ (total score) [#] 4.61±0.91
	178.18±67.95	CET (s) [#] 244.05±107.95*		
Minet et. al, 2015 [26]		N/A	3.6 (3.2 to 4.3) ^{ab}	CCQ (total score) 3.3 (2.5 to 3.6) ^{ab*}
Simoný et. al 2019 [27]	323.09±118.64	6MWT (m) [#] 333.55±131.14	23.23±7.36	CAT (total score) [#] 21.62±7.17
Tousignant et. al, 2012 [32]		N/A	5.1±0.4	CRQ (total score) 6.8±0.3
Tomlinson et. al, 2019 [28]		N/A	72±34	CFQ-R (physical) 58±37
			56±25	CFQ-R (vitality) 51±21
			71±27	CFQ-R (emotion) 71±18
			80±25	CFQ-R (eating) 83±18
			56±36	CFQ-R (treatment burden) 37±24
			70±24	CFQ-R (health perception) 37±38
			74 ±16	CFQ-R (social) 62 ±19
			69±29	CFQ-R (body image) 69±28
			75±27	CFQ-R (role) 65±38
			67±42	CFQ-R (weight) 67±30

				52±33	CFQ-R (respiratory)	56±23
				85±22	CFQ-R (digestive)	91±11
Zanaboni et. al, 2017 [30]	493±106	6MWT (m)	473±108	21.5±6.3	CAT (total score)	20.3±6.7
Lewis et. al, 2021 [31]		N/A		3±0.9	CRQ (dyspnoea)*	3.9±1.1
				3.3±1	CRQ (fatigue)*	4.7±1.3
				4±1	CRQ (emotion)*	5.2±0.9
				4.4±1.1	CRQ (mastery)*	5.3±1
<u>Cardiac</u>					KCCQ (total score)	
Tousignant et. al, 2019 [37]	331.25±92.6	6MWT (m)	354±123.4 ^c	79±11.3		85.75±6.7 ^c
Chen et. al, 2020 [33]		N/A		81.5±16.5	CHQ (physical functioning)	84.9±18
				81.5±29.3	CHQ (role/social limitations: emotional)	73.2±34.3
				53.5±20.4	CHQ (general health perceptions)	57.6±13.5
<u>Neurological</u>					N/A	
Bernocchi et. al, 2016 [41]	155 (98) ^{ad}	6MWT (m)	210 (85) ^{ad}			
Lai et. al, 2016 [45]		N/A		20.5±3.1	QLI-SCI (total score)	20.9±1.7
Ptomey et. al, 2019 [47]		N/A		37.6±2.6	QoL-AD (total score)	38.9±4.8
Lai et. al, 2004 [46]		N/A		49±15.7	SF-36 (physical functioning)	71.6±21.7*
				18.4±32.1	SF-36 (role)	79±41.9*
				57.4±29.3	SF-36 (pain)	86±24.3*
				35±20.3	SF-36 (general health)	53.2±17.7*
				40.8±16.3	SF-36 (vitality)	66.3±17.7*

				<i>SF-36 (social functioning)</i>	
				68.4±22.2	88.8±19.5*
				<i>SF-36 (emotional)</i>	
				45.6±38.8	93±23.8*
				<i>SF-36 (mental health)</i>	
				65.3±22.2	77.7±17.4*
Hüzmeli et. al, 2017 [43]		N/A		<i>SF-36 (physical functioning)</i>	
				42.5 (0 to 65) ^{ae}	42.5 (0 to 75) ^{ae}
				<i>SF-36 (role)</i>	
				12.5 (0 to 100) ^{ae}	12.5 (0 to 100) ^{ae}
				<i>SF-36 (pain)</i>	
				36.5 (10 to 84) ^{ae}	37 (12 to 84) ^{ae}
				<i>SF-36 (general health)</i>	
				40 (10 to 77) ^{ae}	48.5 (10 to 72) ^{ae}
				<i>SF-36 (vitality)</i>	
				57.5 (30 to 85) ^{ae}	55 (30 to 85) ^{ae}
				<i>SF-36 (social functioning)</i>	
				25 (0 to 75) ^{ae}	37.5 (0 to 75) ^{ae}
				<i>SF-36 (emotional)</i>	
				0 (0 to 100) ^{ae}	0 (0 to 100) ^{ae}
				<i>SF-36 (mental health)</i>	
				72 (48 to 80) ^{ae}	70 (48 to 76) ^{ae}
<i>Cancer</i> Coats et. al, 2019 [49]	556.8±55.1	6MWT (m) [#]	596±60.1*	<i>QLQ-C30 (total score)[#]</i>	
				50.2±5	48.4±3.4
		CET (s)			
			341.8±216.2		
Charles et. al, 2021 [48]		N/A		<i>SF-36 (physical functioning)</i>	
				75.4±18.5	78.1±26.4
				<i>SF-36 (physical limitation)</i>	
				26.8±30.2	50±42.5
				<i>SF-36 (pain)</i>	
				63.6±32.2	65±31
				<i>SF-36 (overall health)</i>	
				55.1±21.3	57.1±21.6
				<i>SF-36 (vitality)</i>	
				43.2±21.7	61.9±23.4
				<i>SF-36 (social functioning)</i>	
				70.5±23.8	81.7±24.8
				<i>SF-36 (emotional limitation)</i>	
				73.8±37.4	70±39.9

				SF-36 (mental health)	
				74.3±18.5	79.4±20.7
Lambert et. al, 2021 [50]	593±100	6MWT (m)*	646±97	N/A	
Mixed Patel et. al, 2021 [51]	381±138	6MWT (m) ^{f*}	434±163	76.9±12.2	85.9±13.3
				46.1±19	32.8±12.8
				131.8±13.3	141±10.4

*Reported significant within-group change (p ≤ 0.05)

^a Data reported in median

^b Data reported with interquartile range

^c Data obtained one month post-intervention

^d Data reported with semiquartile range

^e Data presented as minimum to maximum

^f Data obtained virtually

Data obtained via author contact

N/A=Not Available; SGRQ=St George’s Respiratory Questionnaire; CRQ=Chronic Respiratory Disease Questionnaire; 6MWT=Six Minute Walk Test; CET=Cycling Endurance Test; CCQ=Clinical Chronic Obstructive Pulmonary Disease Questionnaire; CAT=Chronic Obstructive Pulmonary Disease Assessment Tool; CFQ-R=Cystic Fibrosis Questionnaire Revised; KCCQ=Kansas City Cardiomyopathy Questionnaire; CHQ=Child Health Questionnaire; QLI-SCI=Quality of Life Index Spinal Cord Injury; QoL-AD=Quality of Life – Alzheimer’s Disease Scale; SF-36=36-Item Short Form Survey; QLQ-C30=Quality of Life Questionnaire for Cancer Patients; FACIT=Functional Assessment of Chronic Illness Therapy

Online Material 3 Safety, technological issues, participant satisfaction and attendance outcome measures

Reference	Safety aspect reported	Technological issues reported	Participant satisfaction reported	Attendance measure
Duruturk et. al, 2019 [39]	N/A	N/A	N/A	<u>Mean (% of attended sessions) – 18 possible sessions</u> I=16 (89%) C=N/A
Tsai et. al, 2016 [29]	<u>Adverse events (total number):</u> I=1* C=0	<u>Total sessions with technical issues (197 total):</u> 24 (12%)	N/A	<u>Mean (SD) – 24 possible sessions</u> I=22±5 C=N/A
Lai et. al, 2018 [44]	N/A	N/A	<u>Participant qualitative experiences from interviews:</u> All participants described ‘overtly positive programme experiences’	<u>Mean (SD) – 24 possible sessions</u> I=24.5±1.4 C=15.7±8.7
Knox et. al, 2019 [24]	<u>Adverse events (total number):</u> I=0 C=2*	<u>Total sessions with technical issues (452 total):</u> 2 (0.9%)	N/A	<u>Mean (SD) – 14 possible sessions[#]</u> I=10.5±4.21 C=11±2.63
Fjeldstad-Pardo et. al, 2018 [42]	N/A	N/A	N/A	N/A
Hansen et. al, 2020 [22]	<u>Adverse events (total number):</u> I=1 (1 death)* C=4 (2 deaths)*	<u>Group sessions cancelled due to technical issues (360 total):</u> 2 (0.56%) <u>Group sessions with minor technical issues (360 total):</u> 49 (13.6%) <u>Individual patient cancellation due to technical issues (360 total):</u> 12 (0.63%)	N/A	<u>Median (%) – 30 possible sessions (I), 20 possible sessions (C)</u> I=25 (75%) C=16 (62%)
Peng et. al, 2018 [35]	<u>Adverse events (total number):</u> I=0 C=0	N/A	N/A	<u>Attrition % at follow up</u> I=14.3% C=16.3%
Hwang et. al, 2017 [34]	<u>Adverse events (total number):</u> I=6	N/A	<u>CSQ-8 (total score):</u> I=Post intervention: 32 (31 to 32)** C=Post intervention: 32 (30 to 32)**	<u>Mean (SD) – 24 possible sessions</u> I=20±6 C=14±7

	C=2			
Hickman et. al, 2021 [40]	<u>Adverse events (total):</u> I=0 C=N/A	<u>Total connection errors (212 total):</u> 44 (20%)	N/A	<u>Mean (SD) – 8 possible sessions</u> I=4.1±2.2 C=N/A
Doiron-Cadrin et. al, 2018	<u>Adverse events (total):</u> I=2 IP=0 C=0	<u>Minor audiovisual connection problems (191 total):</u> 46 (24%) <u>Major audiovisual connection problems (191 total):</u> 33 (17%)	Telehealth satisfaction questionnaire: 100% ‘positive about their telerehabilitation experience’ 91% ‘thought as good as usual care’ 36% ‘thought that the REACT lite app was easy to use’	<u>Mean % (SD) of attended sessions – 191 total sessions</u> I=77%±13 IP=80%±55 C=N/A
Baillet et. al, 2016 [38]	<u>Adverse events (total):</u> I=0	N/A	<u>In-home telehealth patients’ perception questionnaire (%)</u> Baseline: 83.5 (80.9 – 91.2) Post-intervention: 90 (86.8 – 94.1)	<u>Mean % (% range) of attended sessions – 24 possible sessions</u> I=95.8% (85.1 – 100) PT=80.1% (42.6 – 90.1) C=N/A
Scalvini et. al, 2013 [36]	<u>Adverse events (total):</u> I=18 C=19	N/A	<u>Global satisfaction questionnaire:</u> 80% ‘very much high’ 12% ‘high’ 4% ‘medium’ 4% ‘low’	<u>Mean (SD) – 56 possible sessions[#]</u> I=38.4±13.7 C=N/A
Burkow et. al, 2015 [21]	N/A	N/A	<u>Participant qualitative experiences from interviews:</u> Positive experiences reported from intervention amongst patient group	<u>Qualitative description – 18 possible sessions</u> Eight patients attended all group and individual sessions, one patient once missed the Tuesday group sessions, while the tenth patient participated for <6 weeks due to hospital admissions
Coats et. al, 2019 [49]	<u>Adverse events (total):</u> 0	<u>Sessions cancelled due to technical issues (75 total):</u> 4 (5.3%) <u>Sessions with temporary technical issues (75 total):</u> 22 (29.3%)	<u>QUEST 2.0 (total score):</u> I=4.7±0.4	<u>Mean (SD) – 24 possible sessions</u> Supervised sessions: 15±0 Unsupervised sessions: 8.6±3.0
Holland et. al, 2013 [23]	<u>Adverse events (total):</u> 0	<u>Technical problems (128 total):</u> 32 (36%)	<u>SUS (total score):</u> 94 (university network) 59 (hospital network)	<u>% of sessions attended – 16 possible sessions</u> 76%
Lai et. al, 2016 [45]	N/A	<u>Internet connection/stability issues (96 total):</u> 9 (9.4%)	<u>SWLS (total score):</u> Baseline: 22±4.2 Post-intervention: 26.25±4.6	<u>Mean (SD) – 24 possible sessions</u> 24±0

Marquis et. al, 2014 [25]	<u>Adverse event (total):</u> 1	N/A	N/A	N/A
Minet et. al, 2015 [26]	<u>Emergency events during telemedicine sessions (total):</u> 0	N/A	<u>Participant qualitative experiences from interviews:</u> Positive experiences reported from intervention amongst patient group	<u>Mean – 9 possible sessions</u> 7.5
Ptomey et. al, 2019 [47]	<u>Adverse event (total):</u> 0	N/A	<u>Exit satisfaction survey:</u> 100% of adults with AD enjoyed the program 100% of caregivers felt positive about the intervention	<u>% (SD) – 36 possible sessions</u> 77.3±42.0
Simonÿ et. al, 2019 [27]	N/A	N/A	N/A	<u>Mean (SD) – 78 possible sessions[#]</u> 33.27±20.47
Tousignant et. al, 2012 [32]	N/A	N/A	N/A	N/A
Tousignant et. al, 2019 [37]	N/A	N/A	N/A	N/A
Hüzmeli et. al, 2017 [43]	N/A	N/A	N/A	N/A
Tomlinson et. al, 2019 [28]	<u>Adverse events (total):</u> 0	<u>Total sessions with technical difficulties (59 total):</u> 15 (25.4%) <u>Total sessions ended due to technical difficulties (59 total):</u> 3 (5.1%)	<u>Feedback satisfaction questionnaire (10 point scale):</u> 9/10 <u>Feedback satisfaction questionnaire (ratings):</u> 29% ‘excellent’ 43% ‘very good’ 29% ‘good’ <u>Participant qualitative experiences from interviews:</u> Positive experiences reported from intervention amongst patient group	<u>Total number of sessions for all participants – 88 possible sessions</u> 59
Bernocchi et. al, 2016 [41]	N/A	N/A	<u>Ten-item satisfaction questionnaire (ratings):</u> 60% ‘very satisfied’ 40% ‘satisfied’	<u>Mean (SD)</u> 9.5±2.8
Lai et. al, 2004 [46]	N/A	N/A	<u>Satisfaction questionnaire (ratings):</u> 37% ‘excellent’ 63% ‘good’ <u>Participant qualitative experiences from interviews:</u> Positive experiences reported from intervention amongst patient group	<u>% of sessions attended – 8 possible sessions</u> 87%
Chen et. al, 2020 [33]	N/A	N/A	<u>Participant qualitative experiences from survey:</u> Positive experiences reported from intervention amongst patient group	<u>% of sessions completed during intervention period</u> 89.56%

Zanaboni et. al, 2017 [30]	N/A	N/A	N/A	N/A
Charles et. al, 2021 [48]	N/A	N/A	<u>Ad-hoc questionnaire:</u> High levels of satisfaction reported, with patients particularly liking the group based format, quality of supervision, personalised approach and not needing to travel	<u>Mean (SD) – 26 possible sessions</u> 20.8±4.8
Lambert et. al, 2021 [50]	<u>Minor adverse events (total)</u> 4	<u>Sessions not attended due to technical failure:</u> 2 <u>Assessments not completed due to technical failure:</u> 1	N/A	<u>Total missed sessions by all participants – 335 possible sessions</u> 35 <u>Median for attendance across all participants</u> 95% (range: 70-98)
Lewis et. al, 2021 [31]	<u>Adverse events (total)</u> 0	N/A	<u>Participant qualitative experiences from survey:</u> Positive experiences reported from intervention amongst patient group surrounding effectiveness of the program, comparability with face-to-face modules and overcoming technological issues	N/A
Patel et. al, 2021 [51]	<u>Exercise related adverse events (total)</u> 0	N/A	N/A	N/A

* Non study-related adverse event

** Data presented as median (IQR)

Data obtained through author contact

N/A=Not Available; I=Intervention; C=Control; PT=Personal Training; CSQ-8=Client Satisfaction Questionnaire; QUEST 2.0=Quebec User Evaluation of Satisfaction with Assistive Technology; SUS=System Usability Scale; SWLS=Satisfaction With Life Scale; AD=Alzheimer's Disease;

Online Material 4 Downs & Black quality checklist of included trials

Reference	1.Hypothesis stated	2. Main outcomes	3. Participant characteristics	4. Intervention described	5. Principal confounders	6. Main findings	7. Variability estimates	8. Adverse events	9. Patients lost to follow up
Duruturk et. al, 2019 [39]	y	y	y	y	y (2)	y	y	n	y
Tsai et. al, 2016 [29]	y	y	y	y	y (2)	y	y	y	y
Lai et. al, 2018 [44]	y	y	y	y	y (2)	y	y	n	n
Knox et. al, 2019 [24]	y	y	y	n	y (1)	y	y	y	n
Fjeldstad-Pardo et. al, 2018 [42]	y	y	y	n	n	y	y	n	n
Hansen et. al, 2020 [22]	y	y	y	y	y (2)	y	y	y	y
Peng et. al, 2018 [35]	y	y	y	y	y (1)	y	y	y	y
Hwang et. al, 2017 [34]	y	y	y	y	y (2)	y	y	y	y
Hickman et. al, 2021 [40]	y	y	y	y	y (2)	y	y	y	y
Doiron-Cadrin et. al, 2018	y	y	y	y	y (2)	y	y	y	y
Baillot et. al, 2016 [38]	y	y	y	y	y (1)	y	n	y	n
Burkow et. al, 2015 [21]	y	y	y	n	y (1)	y	y	n	y
Coats et. al, 2019 [49]	y	y	y	y	y (2)	y	n	y	y
Holland et. al, 2013 [23]	y	y	y	y	n	y	y	y	n
Lai et. al, 2016 [45]	y	y	y	y	y (2)	y	n	n	y
Marquis et. al, 2014 [25]	y	y	y	y	y (2)	y	y	y	n
Minet et. al, 2015 [26]	y	y	y	y	y (2)	y	y	y	n

Ptomey et. al, 2019 [47]	y	y	y	y	y (2)	y	y	y	y
Scalvini et. al, 2013 [36]	y	y	y	y	y (2)	y	y	y	n
Simoný et, al, 2019 [27]	y	y	y	y	y (1)	y	n	n	n
Tousignant et. al, 2012 [32]	y	y	y	n	y (1)	y	n	n	y
Tousignant et. al, 2019 [37]	y	y	y	n	y (1)	y	n	n	y
Hüzmeli et. al, 2017 [43]	y	y	y	n	y (1)	y	n	n	n
Tomlinson et. al, 2019 [28]	y	y	y	n	y (2)	y	y	y	y
Bernocchi et. al, 2016 [41]	y	y	y	n	y (1)	y	y	n	y
Lai et. al, 2004 [46]	y	y	y	n	y (2)	y	y	n	y
Chen et. al, 2020 [33]	y	y	y	y	y (2)	y	y	n	y
Zanaboni et. al, 2017 [30]	y	y	y	y	y (2)	y	y	n	y
Charles et. al, 2021 [48]	y	y	y	y	y (2)	y	y	n	y
Lambert et. al, 2021 [50]	y	y	y	n	y (2)	y	y	y	y
Lewis et. al, 2021 [31]	y	n	n	y	y (2)	y	y	y	y
Patel et. al, 2021 [51]	y	y	y	y	y (1)	y	y	y	n
	10. Actual <i>P</i> -value	11. Representative participants asked	12. Representative participants prepared	13. Representative treatment	14. Participant blinding	15. Assessor blinding	16. Data dredging	17. Follow up analyses	18. Statistical tests
Duruturk et. al, 2019 [39]	y	n	n	n	n	y	y	y	y
Tsai et. al, 2016 [29]	y	n	n	n	n	y	y	y	y

Lai et. al, 2018 [44]	y	n	n	n	n	n	y	y	y
Knox et. al, 2019 [24]	y	n	n	n	n	n	y	y	y
Fjeldstad-Pardo et. al, 2018 [42]	y	n	n	n	n	y	y	y	y
Hansen et. al, 2020 [22]	n	n	n	n	n	y	y	y	y
Peng et. al, 2018 [35]	n	n	n	n	n	y	y	y	y
Hwang et. al, 2017 [34]	y	n	n	n	n	y	y	y	y
Hickman et. al, 2021 [40]	y	n	n	n	n	y	y	y	y
Doiron-Cadrin et. al, 2018	y	y	n	n	n	y	y	y	y
Baillot et. al, 2016 [38]	n	n	n	n	n	n	y	y	y
Burkow et. al, 2015 [21]	y	n	n	n	n	n	y	y	y
Coats et. al, 2019 [49]	y	y	n	n	n	n	y	y	y
Holland et. al, 2013 [23]	n	n	n	n	n	y	y	y	n
Lai et. al, 2016 [45]	n	n	n	n	n	n	y	y	n
Marquis et. al, 2014 [25]	y	y	n	n	n	n	y	y	y
Minet et. al, 2015 [26]	n	y	n	n	n	n	y	y	y
Ptomey et. al, 2019 [47]	n	y	n	n	n	n	y	y	y
Scalvini et. al, 2013 [36]	n	y	n	n	n	n	y	y	y
Simoný et, al, 2019 [27]	n	y	y	n	n	n	y	y	n
Tousignant et. al, 2012 [32]	n	n	n	n	n	y	y	y	y

Tousignant et. al, 2019 [37]	n	y	n	n	n	y	y	y	y
Hüzmeli et. al, 2017 [43]	y	y	n	n	n	n	y	y	y
Tomlinson et. al, 2019 [28]	n	n	n	n	n	n	y	y	y
Bernocchi et. al, 2016 [41]	y	n	n	n	n	n	y	y	y
Lai et. al, 2004 [46]	n	n	n	n	n	y	y	y	y
Chen et. al, 2020 [33]	y	n	n	n	n	y	y	y	y
Zanaboni et. al, 2017 [30]	n	n	n	n	n	n	y	y	y
Charles et. al, 2021 [48]	y	n	n	n	n	n	y	y	y
Lambert et. al, 2021 [50]	y	y	y	n	n	n	y	y	y
Lewis et. al, 2021 [31]	y	n	n	n	n	n	y	y	y
Patel et. al, 2021 [51]	y	n	n	n	n	n	y	y	n
	19. Intervention Compliance	20. Accurate measures	21. Same population recruited	22. Same time recruitment	23. Randomisation	24. Allocation concealment	25. Adjustment for confounding	26. Losses of participants to follow up taken into account	27. Statistical power
Duruturk et. al, 2019 [39]	y	y	y	y	y	y	n	y	y
Tsai et. al, 2016 [29]	y	y	y	y	y	y	y	y	n
Lai et. al, 2018 [44]	y	y	n	n	y	n	y	y	n
Knox et. al, 2019 [24]	y	y	n	y	n	n	n	n	n
Fjeldstad-Pardo et. al, 2018 [42]	n	y	n	n	n	y	n	y	n
Hansen et. al, 2020 [22]	y	y	y	y	y	y	y	y	y

Peng et. al, 2018 [35]	n	y	y	y	y	y	n	y	n
Hwang et. al, 2017 [34]	y	y	n	y	y	y	n	y	y
Hickman et. al, 2021 [40]	n	y	y	y	y	y	y	n	y
Doiron-Cadrin et. al, 2018	n	y	y	y	y	y	n	y	n
Baillot et. al, 2016 [38]	y	y	y	n	n	n	n	n	n
Burkow et. al, 2015 [21]	y	y	n	n	n	n	n	y	n
Coats et. al, 2019 [49]	y	y	y	y	n	n	n	n	n
Holland et. al, 2013 [23]	y	y	n	n	n	n	n	n	n
Lai et. al, 2016 [45]	y	y	n	n	n	n	n	y	n
Marquis et. al, 2014 [25]	n	y	y	y	n	n	n	n	n
Minet et. al, 2015 [26]	y	y	y	y	n	n	n	n	n
Ptomey et. al, 2019 [47]	y	y	y	y	n	n	n	n	n
Scalvini et. al, 2013 [36]	y	y	y	y	n	n	n	n	n
Simoný et, al, 2019 [27]	y	y	y	n	n	n	n	y	n
Tousignant et. al, 2012 [32]	n	y	n	n	n	n	n	n	n
Tousignant et. al, 2019 [37]	n	y	y	n	n	n	n	n	n
Hüzmeli et. al, 2017 [43]	n	y	y	n	n	n	n	n	n
Tomlinson et. al, 2019 [28]	n	y	y	y	n	n	n	y	n
Bernocchi et. al, 2016 [41]	n	y	y	y	n	n	n	y	n

Lai et. al, 2004 [46]	y	y	n	n	n	n	n	y	n
Chen et. al, 2020 [33]	y	y	y	n	n	n	n	y	n
Zanaboni et. al, 2017 [30]	n	y	n	y	n	n	n	y	n
Charles et. al, 2021 [48]	y	y	n	y	n	n	n	n	n
Lambert et. al, 2021 [50]	y	y	y	n	n	n	n	y	n
Lewis et. al, 2021 [31]	n	y	n	n	n	n	n	y	n
Patel et. al, 2021 [51]	n	y	n	y	n	n	n	n	n

y=Yes; n=No; (1)=One point awarded; (2)=Two points awarded

Online Material 5 Confidence in cumulative effects – Grading of Recommendations Assessment (GRADE)

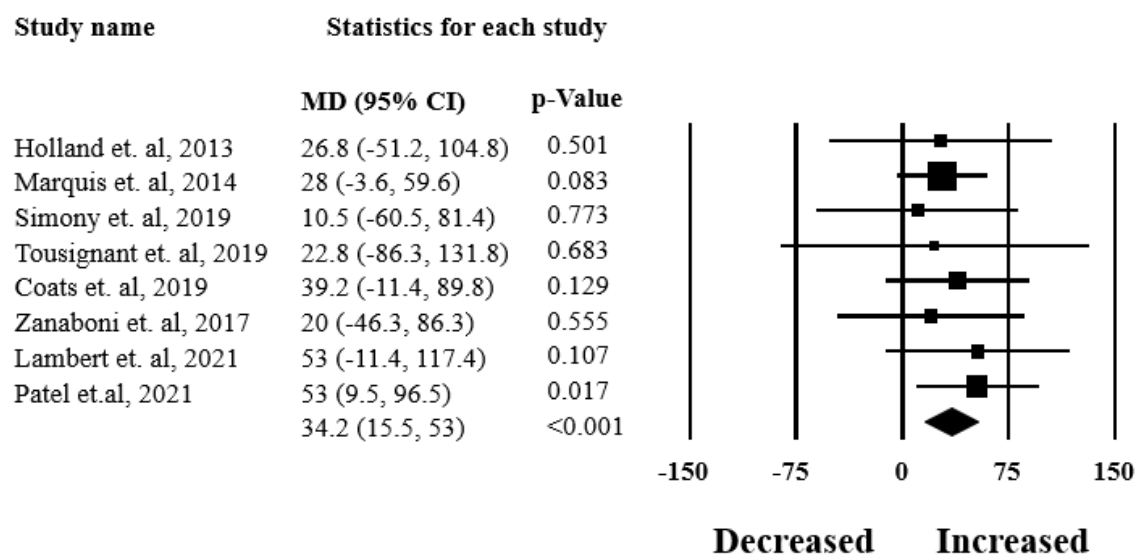
Certainty assessment							Nº of patients		Effect	Certainty	Importance
Nº of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Videoconferencing exercise interventions	Comparator (if present)	Relative (95% CI)		
19	Randomised, non-randomised and non-controlled	Serious ^a	Not serious	Serious ^b	Not serious	Publication bias strongly suspected Strong association ^c	441	328	SMD 0.331 (0.193 to 0.469)	⊕⊕⊕○ MODERATE	CRITICAL
Exercise Capacity (follow up: median 8 weeks)											
27	Randomised, non-randomised and non-controlled	Serious ^d	Not serious	Serious ^e	Not serious	N/App	402	217	SMD 0.3 (0.139 to 0.522)	⊕⊕○○ LOW	IMPORTANT
Quality of Life (follow up: median 8 weeks)											

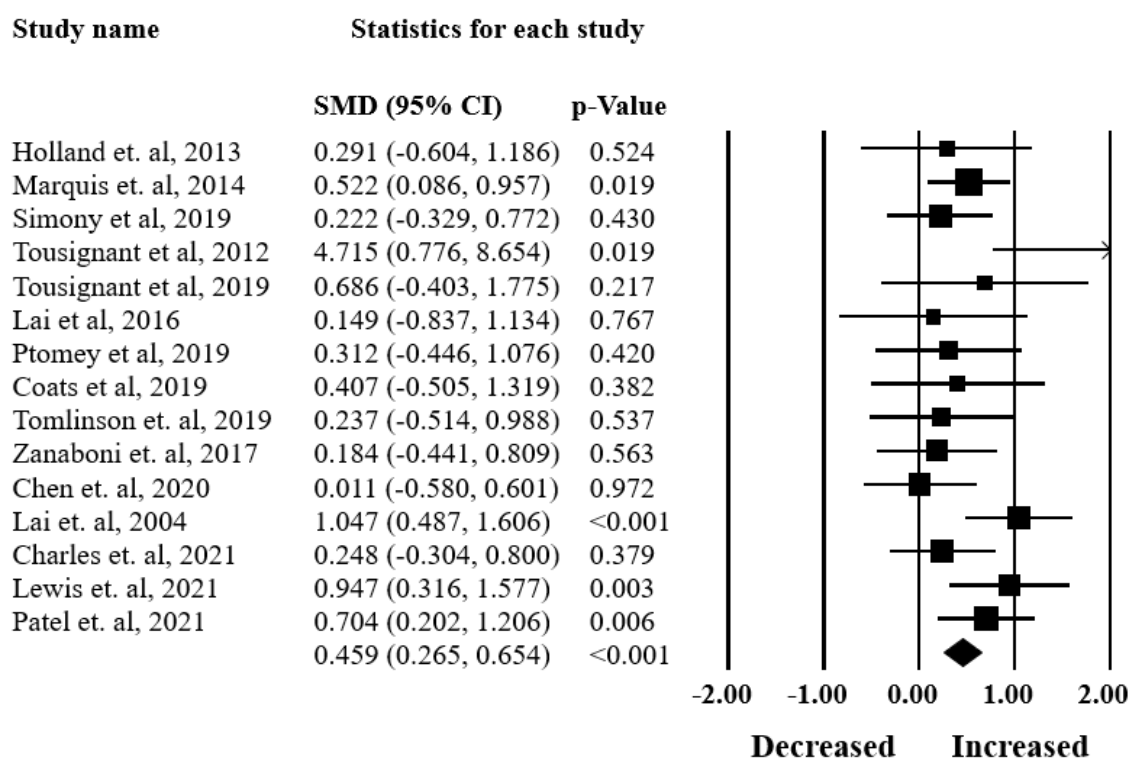
CI: Confidence interval; N/App: Not Applicable

Explanations

- ^a Downgraded one level due to serious Risk of bias. The cumulative mean of the included studies on the Downs & Black checklist was 17.1 (moderate risk). Non-controlled intervention studies were also included, increasing the risk of bias seen in the meta-analyses.
- ^b Downgraded one level due to serious indirectness. 12 trials included additional intervention strategies for patients (eg. educational sessions, dietary advice). Due to the inclusion criteria, participants were also assessed across different disease groups.
- ^c Exercise capacity upgraded one level due to large effect seen in non-exercising control groups.
- ^d Downgraded one level due to serious Risk of bias. The cumulative mean of the included studies on the Downs & Black checklist was 14.5 (moderate risk). Non-controlled intervention studies were also included, increasing the risk of bias seen in the meta-analyses.

^e Downgraded one level due to serious indirectness. 18 trials included additional intervention strategies for patients (eg. educational sessions, dietary advice). Results were also compared across disease groups.

Online Material 6 Single-arm meta-analysis plot: exercise capacity**Supplementary Fig 1.** Meta-analysis of exercise capacity (six-minute walk test) for single-arm trials

Online Material 7 Single-arm meta-analysis plot: quality of life**Supplementary Fig 2.** Meta-analysis of quality of life for single-arm trials