

## Clinical Relevance Tables (Relative Difference Related to 15%)

**N.B. 1) Please note that the clinical relevance tables below are organised in alphabetical order based on the first author of each included randomised controlled trial.**

**N.B. 2) Please refer to the figures to conclude if the Intervention or Control group is favoured in the results.**

*Table 1:* General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice) versus Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice) (End of treatment: 12 weeks)

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	Physical Function [DASH (0-100, lower better)]	17	49	48	12	27%	MD: 21 CI Low: 9.55 CI High: 32.45	D (raised to A because head to head trial, lowered to B because sample size smaller than 100)
	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	40	27				

Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	Pinch Strength (Average: kg, higher better)	17	2.44	2.56	-0.683	-21%	MD: -2.12 CI Low: -3.35 CI High: -0.89	D (raised to A because head to head trial, lowered to B because sample size smaller than 100)
	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	3.88	4.68				
Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	APL Moment (Nm, higher better)	17	1.075	0.892	-0.352	-25%	MD: -0.97 CI Low: -1.48 CI High: -0.46	D (raised to A because head to head trial, lowered to B because sample size smaller than 100)
	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	1.695	1.864				

Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	Pain [VAS at rest (0-10cm, lower better)]	17	2.98	3.29	1.19	70%	MD: 1.23 CI Low: -0.22 CI High: 2.68	D+ (raised to C+ because head to head trial)
	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	2.94	2.06				
Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	Pain [VAS during pinch (0-10cm, lower better)]	17	4.654	3.585	0.403	9%	MD: 0.93 CI Low: -0.73 CI High: 2.58	D (raised to C because head to head trial, lowered to C- due to statistical significance)
	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	4.131	2.659				

CI: Confidence Interval; MD: Mean Difference; VAS: Visual Analogue Scale; kg: Kilogram

*Table 2: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice) versus Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice) (End of treatment: 26 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	Pinch Strength (kg, higher better)	17	2.44	2.89	-0.526	-16%	MD: -1.96 CI Low: -3.31 CI High: -0.61	D (raised to A because head to head trial, lowered to B because sample size smaller than 100)
	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	3.88	4.85				
Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	APL Moment (Nm, higher better)	17	1.075	1.166	-0.159	-11%	MD: -0.78 CI Low: -1.27 CI High: -0.28	D (raised to C because head to head trial)

	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	1.695	1.945				
Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	Pain [VAS at rest (0-10cm, lower better)]	17	2.98	1.76	0.386	13%	MD: 0.43 CI Low: -0.51 CI High: 1.36	D (raised to C because head to head trial, lowered to C- due to statistical significance)
	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	2.94	1.33				
Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	Physical Function [DASH (0-100, lower better)]	17	49	42	2	5%	MD: 11 CI Low: -1.27 CI High: 23.27	D (raised to C because head to head trial, lowered to C- due to statistical significance)

	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	40	31				
Davenport et al., 2012	I: General hand exercise programme (ROM + Stretch + Isotonic + Isometric + Functional exercise programme: Progressive + Home and Clinic-based + Standardised advice)	Pain [VAS during pinch (0-10cm, lower better)]	17	4.654	1.925	-0.816	-19%	MD: -0.29 CI Low: -1.45 CI High: 0.86	C+ (lowered to D+ because figure favours control)
	C: Specific hand Carpometacarpal (CMC) joint stability exercise programme (ROM + Isometric + Functional + Stretch + Progressive + Home and Clinic-based + Standardised advice)		21	4.131	2.218				

CI: Confidence Interval; DASH: Disabilities of the Arm, Shoulder and Hand, MD: Mean Difference; VAS: Visual Analogue Scale; kg: Kilogram

*Table 3: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA) versus Control (Information Leaflet/advice on self-management approaches for HOA) (End of treatment: 12 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Self-efficacy [Pain ASES (1-10, higher better)]	65	5.2	6	0.5	10%	MD: 0.9 CI Low: 0.28 CI High: 1.52	C
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.8	5.1				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Pain [AUSCAN (0-20, lower better)]	65	8.8	8.6	-0.2	-2%	MD: -0.9 CI Low: -2.09 CI High: 0.29	C (lowered to C- because of statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		65	9.5	9.5				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Pain [Hand Pain Severity on Average Last 3 Days (0-10, lower better)]	65	4.3	4.3	0.2	4%	MD: -0.2 CI Low: -0.94 CI High: 0.54	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.7	4.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Stiffness [AUSCAN (0-4, lower better)]	65	1.4	1.3	-0.1	-7%	MD: -0.3 CI Low: -0.63 CI High: 0.03	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		65	1.6	1.6				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Physical Function [AUSCAN (0-36, lower better)]	65	13.8	14.3	-1	-7%	MD: -1.7 CI Low: -4.36 CI High: 0.96	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		65	14.5	16				



Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Physical Function [Severity of Main Functional Problem on Average in the Last 3 Days (0-10, lower better)]	65	4.7	4.5	-0.2	-4%	MD: -0.4 CI Low: -1.19 CI High: 0.39	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.9	4.9				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Physical Function [Satisfaction with Hand Function Last 3 Days (0-10, lower better)]	65	4.6	4.5	-0.5	-11%	MD: -0.5 CI Low: -1.27 CI High: 0.27	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.6	5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	QoL [SF-12: Physical component (0-100), higher better]	65	41.9	41.9	0.5	1%	MD: 2.7 CI Low: -0.93 CI High: 6.33	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	39.7	39.2				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	QoL [SF-12: Mental component (0–100), higher better]	65	48.4	49.7	1.2	2%	MD: -0.9 CI Low: -4.68 CI High: 2.88	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	50.5	50.6				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index

*Table 4:* Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA) versus Control (Information Leaflet/advice on self-management approaches for HOA) (End of treatment: 26 weeks)

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Pain [AUSCAN (0-20, lower better)]	65	8.8	9.4	0.6	7%	MD: -0.1 CI Low: -1.48 CI High: 1.28	D (raised to D- because of statistical significance, raised to C- because figure favours intervention)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		65	9.5	9.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Self-efficacy [Pain ASES (1-10, higher better)]	65	5.2	5.9	0.1	2%	MD: 0.5 CI Low: -0.15 CI High: 1.15	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.8	5.4				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Physical Function [AUSCAN (0-36, lower better)]	65	13.8	13.9	-0.3	-2%	MD: -1 CI Low: -3.73 CI High: 1.73	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		65	14.5	14.9				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Physical Function [Severity of Main Functional Problem on Average in the Last 3 Days (0-10, lower better)]	65	4.7	4.8	0.1	2%	MD: -0.1 CI Low: -0.93 CI High: 0.73	D (raised to D- because of statistical significance then raised to C- because figure favours intervention)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.9	4.9				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Grip Strength (lbs, higher better)	65	38.4	45.6	4.1	11%	MD: 4.8 CI Low: -3.03 CI High: 12.63	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	37.7	40.8				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Pinch Strength (lbs, higher better)	65	9	9.3	0.1	1%	MD: 0.3 CI Low: -0.92 CI High: 1.52	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	8.8	9				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	QoL [SF-12: Physical component (0–100), higher better]	65	41.9	42.9	0.3	1%	MD: 2.5 CI Low: -1.13 CI High: 6.13	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	39.7	40.4				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	QoL [SF-12: Mental component (0–100), higher better]	65	48.4	50.9	3.5	7%	MD: 1.4 CI Low: -2.1 CI High: 4.9	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	50.5	49.5				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Stiffness [AUSCAN (0-4, lower better)]	65	1.4	1.6	0.2	13%	MD: 0 CI Low: -0.34 CI High: 0.34	D (raised to D- because of statistical significance, then raised to C-/D- because figure is neutral)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		65	1.6	1.6				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Physical Function [Satisfaction with Hand Function Last 3 Days (0-10, lower better)]	65	4.6	4.6	0.3	7%	MD: 0.3 CI Low: -0.54 CI High: 1.14	D (lowered to D- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.6	4.3				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Grip Strength [Grip ability, GAT (seconds, higher better)]	65	38.4	45.6	4.1	11%	MD: -6.9 CI Low: -13.41 CI High: -0.39	D
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	37.7	40.8				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Pain [Hand Pain Severity on Average Last 3 Days (0-10, lower better)]	65	4.3	4.3	0.8	18%	MD: 0.4 CI Low: -0.36 CI High: 1.16	D+
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.7	3.9				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index; lbs: Pound

*Table 5: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA) versus Control (Information Leaflet/advice on self-management approaches for HOA) (End of treatment: 52 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Self-efficacy [Pain ASES (1-10, higher better)]	65	5.2	5.8	0.4	8%	MD: 0.8 CI Low: 0.13 CI High: 1.47	C
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.8	5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Pain [AUSCAN (0-20, lower better)]	65	8.8	9.1	0.1	1%	MD: -0.6 CI Low: -1.94 CI High: 0.74	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		65	9.5	9.7				



Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Pain [Hand Pain Severity on Average Last 3 Days (0-10, lower better)]	65	4.3	4.4	0.2	4%	MD: -0.2 CI Low: -0.96 CI High: 0.56	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.7	4.6				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Stiffness [AUSCAN (0-4, lower better)]	65	1.4	1.5	0	0%	MD: -0.2 CI Low: -0.51 CI High: 0.11	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		65	1.6	1.7				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Physical Function [AUSCAN (0-36, lower better)]	65	13.8	14.7	-0.1	-1%	MD: -0.8 CI Low: -3.52 CI High: 1.92	C (lowered to C- due to statistical significance)

	C: Control (Information Leaflet/advice on self-management approaches for HOA)		65	14.5	15.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Physical Function [Severity of Main Functional Problem on Average in the Last 3 Days (0-10, lower better)]	65	4.7	4.7	-0.2	-4%	MD: -0.4 CI Low: -1.16 CI High: 0.36	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.9	5.1				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	Physical Function [Satisfaction with Hand Function Last 3 Days (0-10, lower better)]	65	4.6	4.7	-0.4	-9%	MD: -0.4 CI Low: -1.18 CI High: 0.38	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.6	5.1				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	QoL [SF-12: Physical component (0-100), higher better]	65	41.9	43.1	1.2	3%	MD: 3.4 CI Low: -0.31 CI High: 7.11	C (lowered to C- due to statistical significance)

	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	39.7	39.7				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Standardised advice + Information workbook on education, on goal setting, on home programmes, and on habits of HOA)	QoL [SF-12: Mental component (0–100), higher better]	65	48.4	51	3.3	7%	MD: 1.2 CI Low: -2.59 CI High: 4.99	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	50.5	49.8				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index

*Table 6: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA versus Control (Information Leaflet/advice on self-management approaches for HOA) (End of Treatment: 12 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Physical Function [Satisfaction with Hand Function Last 3 Days (0-10, lower better)]	65	4.4	4.1	-0.7	-16%	MD: -0.9 CI Low: -1.61 CI High: -0.19	A
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.6	5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Self-efficacy [Pain ASES (1-10, higher better)]	65	5.1	6.1	0.7	14%	MD: 1.0 CI Low: 0.35 CI High: 1.65	C
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.8	5.1				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Pain [AUSCAN (0-20, lower better)]	65	9.4	9	-0.4	-4%	MD: -0.5 CI Low: -1.66 CI High: 0.66	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	9.5	9.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Pain [Hand Pain Severity on Average Last 3 Days (0-10, lower better)]	65	4.4	4	-0.2	-4%	MD: -0.5 CI Low: -1.14 CI High: 0.14	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.7	4.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Stiffness [AUSCAN (0-4, lower better)]	65	1.5	1.4	-0.1	-6%	MD: -0.2 CI Low: -0.54 CI High: 0.14	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	1.6	1.6				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Physical Function [AUSCAN (0-36, lower better)]	65	15	14.7	-1.8	-12%	MD: -1.3 CI Low: -3.88 CI High: 1.28	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	14.5	16				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Physical Function [Severity of Main Functional Problem on Average in the Last 3 Days (0-10, lower better)]	65	5	4.5	-0.5	-10%	MD: -0.4 CI Low: -1.16 CI High: 0.36	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.9	4.9				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	QoL [SF-12: Physical component (0-100), higher better]	65	39.9	40	0.6	2%	MD: 0.8 CI Low: -3.04 CI High: 4.64	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	39.7	39.2				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	QoL [SF-12: Mental component (0–100), higher better]	65	51.8	50.9	-1	-2%	MD: 0.3 CI Low: -3.38 CI High: 3.98	D (lowered to D- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	50.5	50.6				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index

*Table 7: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA versus Control (Information Leaflet/advice on self-management approaches for HOA) (End of Treatment: 26 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Self-efficacy [Pain ASES (1-10, higher better)]	65	5.1	6.4	0.7	14%	MD: 1.0 CI Low: 0.36 CI High: 1.64	C
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.8	5.4				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Pain [AUSCAN (0-20, lower better)]	65	9.4	8.6	-0.8	-8%	MD: -0.9 CI Low: -2.21 CI High: 0.41	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	9.5	9.5				



Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Stiffness [AUSCAN (0-4, lower better)]	65	1.5	1.4	-0.1	-6%	MD: -0.2 CI Low: -0.53 CI High: 0.13	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	1.6	1.6				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Physical Function [AUSCAN (0-36, lower better)]	65	15	14.3	-1.1	-7%	MD: -0.6 CI Low: -3.21 CI High: 2.01	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	14.5	14.9				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Physical Function [Severity of Main Functional Problem on Average in the Last 3 Days (0-10, lower better)]	65	5	4.6	-0.4	-8%	MD: -0.3 CI Low: -1.14 CI High: 0.54	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.9	4.9				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Physical Function [Satisfaction with Hand Function Last 3 Days (0-10, lower better)]	65	4.4	4.1	0	0%	MD: -0.2 CI Low: -0.99 CI High: 0.59	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.6	4.3				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Pinch Strength (lbs, higher better)	65	9	9.2	0	0%	MD: 0.2 CI Low: -0.99 CI High: 1.39	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	8.8	9				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	QoL [SF-12: Physical component (0-100), higher better]	65	39.9	40.6	0	0%	MD: 0.2 CI Low: -3.7 CI High: 4.1	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	39.7	40.4				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	QoL [SF-12: Mental component (0–100), higher better]	65	51.8	50.7	-0.1	0%	MD: 1.2 CI Low: -2.46 CI High: 4.86	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	50.5	49.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Grip Strength (lbs, higher better)	65	36.8	40.4	0.5	1%	MD: -0.4 CI Low: -7.27 CI High: 6.47	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	37.7	40.8				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Grip Strength [Grip ability, GAT (seconds, higher better)]	65	33.9	31.2	-4.4	-13%	MD: -6.2 CI Low: -12.66 CI High: 0.26	D (lowered to D- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	35.7	37.4				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Pain [Hand Pain Severity on Average Last 3 Days (0-10, lower better)]	65	4.4	4.4	0.8	18%	MD: 0.5 CI Low: -0.21 CI High: 1.21	D+
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.7	3.9				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index; lbs: Pound

*Table 8: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA versus Control (Information Leaflet/advice on self-management approaches for HOA) (End of Treatment: 52 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Physical Function [Severity of Main Functional Problem on Average in the Last 3 Days (0-10, lower better)]	65	5	4.3	-0.9	-18%	MD: -0.8 CI Low: -1.58 CI High: -0.02	A
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.9	5.1				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Self-efficacy [Pain ASES (1-10, higher better)]	65	5.1	5.8	0.5	10%	MD: 0.8 CI Low: 0.18 CI High: 1.42	C
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.8	5				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Physical Function [Satisfaction with Hand Function Last 3 Days (0-10, lower better)]	65	4.4	4.3	-0.6	-13%	MD: -0.8 CI Low: -1.54 CI High: -0.06	C
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.6	5.1				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Pain [AUSCAN (0-20, lower better)]	65	9.4	9.1	-0.5	-5%	MD: -0.6 CI Low: 1.91 CI High: 0.71	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	9.5	9.7				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Pain [Hand Pain Severity on Average Last 3 Days (0-10, lower better)]	65	4.4	4.2	-0.1	-2%	MD: -0.4 CI Low: -1.16 CI High: 0.36	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	4.7	4.6				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Stiffness [AUSCAN (0-4, lower better)]	65	1.5	1.5	-0.1	-6%	MD: -0.2 CI Low: -0.55 CI High: 0.15	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	1.6	1.7				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	QoL [SF-12: Physical component (0-100), higher better]	65	39.9	41.4	1.5	4%	MD: 1.7 CI Low: -2.25 CI High: 5.65	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	39.7	39.7				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	QoL [SF-12: Mental component (0-100), higher better]	65	51.8	51.2	0.1	0%	MD: 1.4 CI Low: -2.41 CI High: 5.21	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	50.5	49.8				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA	Physical Function [AUSCAN (0-36, lower better)]	65	15	15.6	-0.4	-3%	MD: 0.1 CI Low: -2.53 CI High: 2.73	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Information Leaflet/advice on self-management approaches for HOA)		62	14.5	15.5				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index; lbs: Pound



*Table 9: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA) versus Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips) (End of treatment: 12 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Pain [Hand Pain Severity on Average Last 3 Days (0-10, lower better)]	65	4.4	4	0.1	2%	MD: -0.7 CI Low: -1.37 CI High: -0.03	D (raised to C because figure favours intervention)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	5.2	4.7				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Pain [AUSCAN (0-20, lower better)]	65	9.4	9	0.2	2%	MD: -0.6 CI Low: -1.64 CI High: 0.44	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	10.2	9.6				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Stiffness [AUSCAN (0-4, lower better)]	65	1.5	1.4	-0.1	-7%	MD: -0.1 CI Low: -0.45 CI High: 0.25	C (lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	1.5	1.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Physical Function [AUSCAN (0-36, lower better)]	65	15	14.7	-0.3	-2%	MD: -1.2 CI Low: -3.61 CI High: 1.21	C (lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	15.9	15.9				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Physical Function [Severity of Main Functional Problem on Average in the Last 3 Days (0-10, lower better)]	65	5	4.5	0.1	2%	MD: -0.5 CI Low: -1.27 CI High: 0.27	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)

	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	5.6	5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Physical Function [Satisfaction with Hand Function Last 3 Days (0-10, lower better)]	65	4.4	4.1	0.3	6%	MD: -0.7 CI Low: -1.46 CI High: 0.06	C (lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	5.4	4.8				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Self-efficacy [Pain ASES (1-10, higher better)]	65	5.1	6.1	-0.2	-4%	MD: -0.4 CI Low: -1.01 CI High: 0.21	D (lowered to D- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	5.3	6.5				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	QoL [SF-12: Physical component (0–100), higher better]	65	39.9	40	-1.4	-4%	MD: -0.5 CI Low: -4.12 CI High: 3.12	D (lowered to D- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	39	40.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	QoL [SF-12: Mental component (0–100), higher better]	65	51.8	50.9	0.5	1%	MD: -0.7 CI Low: -4.23 CI High: 2.83	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	53	51.6				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index

*Table 10: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA) versus Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips) (End of treatment: 26 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Pain [AUSCAN (0-20, lower better)]	65	9.4	8.6	-1.78	0%	MD: -0.8 CI Low: -2.16 CI High: 0.56	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	10.2	9.4				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Physical Function [AUSCAN (0-36, lower better)]	65	15	14.3	-0.4	-3%	MD: -1.3 CI Low: -3.93 CI High: 1.33	C (lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	15.9	15.6				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Physical Function [Severity of Main Functional Problem on Average in the Last 3 Days (0-10, lower better)]	65	5	4.6	0.3	6%	MD: -0.3 CI Low: -1.19 CI High: 0.59	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	5.6	4.9				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Pinch Strength (lbs, higher better)	65	9	9.2	0.5	6%	MD: 0.7 CI Low: -0.55 CI High: 1.95	C (lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	8.8	8.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	QoL [SF-12: Physical component (0-100), higher better]	65	39.9	40.6	0.3	1%	MD: 1.2 CI Low: -2.47 CI High: 4.87	C (lowered to C- due to statistical significance)

	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	39	39.4				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Pain [Hand Pain Severity on Average Last 3 Days (0-10, lower better)]	65	4.4	4.4	0.8	17%	MD: 0 CI Low: -0.75 CI High: 0.75	D+ (lowered to D- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	5.2	4.4				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Stiffness [AUSCAN (0-4, lower better)]	65	1.5	1.4	0	0%	MD: 0 CI Low: -0.35 CI High: 0.35	D (lowered to D- due to statistical significance, raised to C-/D- because figure is neutral)
	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	1.5	1.4				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Self-efficacy [Pain ASES (1-10, higher better)]	65	5.1	6.4	0.1	2%	MD: -0.1 CI Low: -0.69 CI High: 0.49	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	5.3	6.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Grip Strength (lbs, higher better)	65	36.8	40.4	-1.4	-4%	MD: -1.3 CI Low: -8.6 CI High: 6	D (lowered to D- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	36.7	41.7				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	QoL [SF-12: Mental component (0-100), higher better]	65	51.8	50.7	-0.3	-1%	MD: -1.5 CI Low: -5.07 CI High: 2.07	D (lowered to D- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)								



	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	53	52.2				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Grip Strength [Grip ability, GAT (seconds, higher better)]	65	33.9	31.2	0.6	2%	MD: -0.3 CI Low: -4.05 CI High: 3.45	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	34.8	31.5				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Physical Function [Satisfaction with Hand Function Last 3 Days (0-10, lower better)]	65	4.4	4.1	1.1	23%	MD: 0.1 CI Low: -0.72 CI High: 0.92	D+
	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	5.4	4				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index; lbs: Pound

*Table 11: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA) versus Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips) (End of treatment: 52 weeks)*

<b>Study</b>	<b>Study Groups: Intervention (I) and Control (C)</b>	<b>Outcome</b>	<b>No. of Patients</b>	<b>Baseline Mean</b>	<b>End of Study Mean</b>	<b>Absolute Benefit</b>	<b>Relative Difference in Change From Baseline</b>	<b>Mean Difference (MD) 95% Confidence Interval (CI)</b>	<b>Grade</b>
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Pain [Hand Pain Severity on Average Last 3 Days (0-10, lower better)]	65	4.4	4.2	-0.1	-2%	MD: -0.9 CI Low: -1.68 CI High: -0.12	C
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	5.2	5.1				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Physical Function [Severity of Main Functional Problem on Average in the Last 3 Days (0-10, lower better)]	65	5	4.3	-0.4	-8%	MD: -1.0 CI Low: -1.84 CI High: -0.16	C
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	5.6	5.3				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Pain [AUSCAN (0-20, lower better)]	65	9.4	9.1	-0.2	-2%	MD: -1 CI Low: -2.3 CI High: 0.3	C (lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	10.2	10.1				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Stiffness [AUSCAN (0-4, lower better)]	65	1.5	1.5	-0.1	-7%	MD: -0.1 CI Low: -0.45 CI High: 0.25	C (lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	1.5	1.6				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Physical Function [AUSCAN (0-36, lower better)]	65	15	15.6	-0.6	-4%	MD: -1.5 CI Low: -4.11 CI High: 1.11	C (lowered to C- due to statistical significance)

	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	15.9	17.1				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Physical Function [Satisfaction with Hand Function Last 3 Days (0-10, lower better)]	65	4.4	4.3	0	0%	MD: -1.0 CI Low: -1.8 CI High: -0.2	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	5.4	5.3				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	QoL [SF-12: Physical component (0–100), higher better]	65	39.9	41.4	0.8	2%	MD: 1.7 CI Low: -1.94 CI High: 5.34	C (lowered to C- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) +Safe lifting techniques + Energy conservation + Grip tips)		62	39	39.7				

Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	Self-efficacy [Pain ASES (1-10, higher better)]	65	5.1	5.8	-0.1	-2%	MD: -0.3 CI Low: -0.91 CI High: 0.31	D (lowered to D- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	5.3	6.1				
Dziedzic et al., 2015	I: Hand exercise programme (Stretch + Isotonic + Isometric exercise programme: Progressive: + Home and Clinic-based + Joint protection (Education, Workbooks) + Information Leaflet/advice on self-management approaches for HOA)	QoL [SF-12: Mental component (0-100), higher better]	65	51.8	51.2	0.6	1%	MD: -0.6 CI Low: -4.25 CI High: 3.05	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Joint protection (Education, Workbooks) + Safe lifting techniques + Energy conservation + Grip tips)		62	53	51.8				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index

*Table 12: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics) versus Control (Information Leaflet on HOA and on ergonomics) (End of treatment: 12 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	Physical Function [FIHOA (0-30, lower better)]	40	11	8.8	-3.9	-37%	MD: -2.9 CI Low: -5 CI High: -0.8	A  (lowered to B because sample size smaller than 100)
	C: Control (Information Leaflet on HOA and on ergonomics)		40	10	11.7				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	Grip Strength (Right hand: kg, higher better)	40	16.1	20.4	5.22	34%	MD: 6.72 CI Low: 3.36 CI High: 10.08	A  (lowered to B because sample size smaller than 100)
	C: Control (Information Leaflet on HOA and on ergonomics)		40	14.6	13.7				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	Grip Strength (Left hand: kg, higher better)	40	15.22	18.5	4.32	30%	MD: 5.63 CI Low: 2.27 CI High: 8.99	A  (lowered to B because sample size smaller than 100)
	C: Control (Information Leaflet on HOA and on ergonomics)		40	13.92	12.8				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-	Pain [NRS (0-10, lower better)]	40	5	3.9	-1.4	-29%	MD: -0.9 CI Low: -1.82 CI High: 0.02	C+

	based + Information Leaflet on HOA and on ergonomics)								
	C: Control (Information Leaflet on HOA and on ergonomics)		40	4.5	4.8				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	Pain [right hand after measuring grip strength (0-10, lower better)]	40	4.14	3.16	-0.66	-17%	MD: -0.34 CI Low: -1.31 CI High: 0.63	C+
	C: Control (Information Leaflet on HOA and on ergonomics)		40	3.82	3.5				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	Stiffness [NRS (0-10, lower better)]	40	6	4.8	-1	-18%	MD: 0 CI Low: -0.94 CI High: 0.94	C+
	C: Control (Information Leaflet on HOA and on ergonomics)		40	5	4.8				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	ROM (total flexion deficit of right hand 2-5 digit) (mm, lower better)	40	10.351	13.135	-2.5986	-25%	MD: -2.92 CI Low: -16.01 CI High: 10.16	C+
	C: Control (Information Leaflet on HOA and on ergonomics)		40	10.677	16.059				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	ROM (total flexion deficit of left hand 2-5 digit) (mm, lower better)	40	13.324	15.46	-3.3354	-25%	MD: -3.31 CI Low: -18.3 CI High: 11.69	C+
	C: Control (Information Leaflet		40	13.294	18.765				

	on HOA and on ergonomics)								
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	ROM (thumb opposition deficit of left hand) (mm, lower better)	40	5.41	3.78	-4.24	-112%	MD : -1.01 CI Low : -4.9 CI High : 2.88	C+
	C: Control (Information Leaflet on HOA and on ergonomics)		40	2.18	4.79				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	Fatigue [NRS (0-10), lower better]	40	4.84	4.14	-1.17	-24%	MD: -1.07 CI Low: -2.43 CI High: 0.29	C+
	C: Control (Information Leaflet on HOA and on ergonomics)		40	4.74	5.21				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	ROM (thumb web space of right hand) (1-12, higher better)	40	6.35	6.78	0.6	9%	MD: 0.66 CI Low: -0.05 CI High: 1.37	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet on HOA and on ergonomics)		40	6.29	6.12				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-based + Information Leaflet on HOA and on ergonomics)	ROM (thumb web space of left hand) (1-12, higher better)	40	6.49	7.22	0.67	10%	MD: 0.72 CI Low: -0.03 CI High: 1.47	C (lowered to C- due to statistical significance)
	C: Control (Information Leaflet on HOA and on ergonomics)		40	6.44	6.5				
Hennig et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Home-	ROM (thumb opposition deficit of	40	5.03	5.49	0.93	16%	MD: -0.48 CI Low: -5.43 CI High: 4.47	D+



	based + Information Leaflet on HOA and on ergonomics)	right hand) (mm, lower better)							
	C: Control (Information Leaflet on HOA and on ergonomics)		40	6.26	5.79				

CI: Confidence Interval; MD: Mean Difference; VAS: Visual Analogue Scale; NRS: Numerical rating scale FIHOA: Functional Index for Hand Osteoarthritis;  
kg: Kilogram

*Table 13: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based) versus Control (Usual Care: Normal activities) (End of treatment: 6 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Lefler et al., 2004	I: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based)	Pain, [six-point scale (0-6, lower better)]	9	1	0.8	-0.9	-107%	MD: -0.6 CI Low: -1.67 CI High: 0.47	C+
	C: Control (Usual Care: Normal activities)		10	0.7	1.4				
Lefler et al., 2004	I: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based)	Pinch Strength (Palmar Pinch: lbs, higher better)	9	6.7	9.2	3	38%	MD: 0.6 CI Low: -1.59 CI High: 2.79	C+
	C: Control (Usual Care: Normal activities)		10	9.1	8.6				
Lefler et al., 2004	I: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based)	Pinch Strength (Fourth Digit Pinch: lbs, higher better)	9	4	5.5	2.1	42%	MD: 0.1 CI Low:-1.68 CI High:1.88	C+
	C: Control (Usual Care: Normal activities)		10	6	5.4				
Lefler et al., 2004	I: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based)	Pinch Strength (Lateral Pinch: lbs, higher better)	9	4.1	5.3	2.4	50%	MD: 1.1 CI Low: -0.44 CI High: 2.64	C+
	C: Control (Usual Care: Normal activities)		10	5.4	4.2				

Lefler et al., 2004	I: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based)	Grip Strength (lbs, higher better)	9	27.1	35.3	9.7	29%	MD: -2 CI Low: -11.95 CI High: 7.95	C+ (lowered to D+ because figure favours control)
	C: Control (Usual Care: Normal activities)		10	38.8	37.3				
Lefler et al., 2004	I: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based)	Pinch Strength (Fifth Digit Pinch: lbs, higher better)	9	2.5	4	1.7	49%	MD: -0.2 CI Low: -1.68 CI High: 1.28	C+ (lowered to D+ because figure favours control)
	C: Control (Usual Care: Normal activities)		10	4.4	4.2				
Lefler et al., 2004	I: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based)	Pinch Strength (Third Digit Pinch: lbs, higher better)	9	5.5	6.8	1.4	21%	MD: -0.6 CI Low: -2.31 CI High: 1.11	C+ (lowered to D+ because figure favours control)
	C: Control (Usual Care: Normal activities)		10	7.5	7.4				
Lefler et al., 2004	I: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based)	Pinch Strength (Second Digit Pinch: lbs, higher better)	9	7.1	8.7	1.8	22%	MD: -0.6 CI Low: -2.85 CI High: 1.65	C+ (lowered to D+ because figure favours control)
	C: Control (Usual Care: Normal activities)		10	9.5	9.3				
Lefler et al., 2004	I: Hand exercise programme (ROM + Isotonic + Isometric + Functional exercise programme: Progressive Clinic-based)	ROM (Degrees, higher better)	9	1.5	1	-0.5	-37%	MD: -0.2 CI Low: -0.83 CI High: 0.43	D+

	Progressive Clinic-based)								
	C: Control (Usual Care: Normal activities)		10	1.2	1.2				

CI: Confidence Interval; MD: Mean Difference; lbs: Pound

*Table 14:* Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation) versus Control (Information on joint protection and on energy conservation) (End of treatment: 6 weeks)

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pain [AUSCAN (0-20, lower better)]	30	7.9	5.73	-2.63	-32%	MD: -3.2 CI Low: -5.18 CI High: -1.22	A (lowered to B because sample size smaller than 100)
	C: Control (Information on joint protection and on energy conservation)		30	8.47	8.93				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Stiffness [AUSCAN (0-4, lower better)]	30	1.97	1.73	-0.37	-18%	MD: -0.6 CI Low: -1.42 CI High: 0.22	C+
	C: Control (Information on joint protection and on energy conservation)		30	2.2	2.33				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Tip, Non-dominant hand: kg/f, higher better)	30	5.39	4.48	-0.95	-21%	MD: 0.57 CI Low: -0.02 CI High: 1.16	D+ (raised to C+ because figure favours intervention)
	C: Control (Information on joint protection and on energy conservation)		30	3.87	3.91				

Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Grip Strength (Dominant hand: kg/f, higher better)	30	17.7	18.7	1.28	8%	MD: 3.8 CI Low: 1.46 CI High: 6.14	C
	C: Control (Information on joint protection and on energy conservation)		30	15.18	14.9				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Grip Strength (Non-dominant hand: kg/f, higher better)	30	16.5	16.9	1	6%	MD: 2.8 CI Low: 0.5 CI High: 5.1	C
	C: Control (Information on joint protection and on energy conservation)		30	14.7	14.1				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Key, Non-dominant hand: kg/f, higher better)	30	5.88	6	0.04	1%	MD: 0.74 CI Low: 0.23 CI High: 1.25	C
	C: Control (Information on joint protection and on energy conservation)		30	5.18	5.26				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pain [NPS (Dominant hand: 0-10cm, lower better)]	30	6.33	4.4	-0.43	-7%	MD: -0.23 CI Low: -1.55 CI High: 1.09	C (lowered to C- due to statistical significance)
	C: Control (Information on joint protection and on energy conservation)		30	6.13	4.63				

Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pain [NPS (Non-dominant hand: 0-10cm, lower better)]	30	5.67	4.2	-0.27	-5%	MD: -0.53 CI Low: -1.82 CI High: 0.76	C (lowered to C- due to statistical significance)
	C: Control (Information on joint protection and on energy conservation)		30	5.93	4.73				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Physical Function [AUSCAN (0-36, lower better)]	30	12.67	11.77	-1.9	-14%	MD: -3.23 CI Low: -6.95 CI High: 0.49	C (lowered to C- due to statistical significance)
	C: Control (Information on joint protection and on energy conservation)		30	14	15				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Tip, Dominant hand: kg/f, higher better)	30	4.51	4.44	-0.17	-4%	MD: 0.23 CI Low: -0.34 CI High: 0.8	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information on joint protection and on energy conservation)		30	4.11	4.21				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Key, Dominant hand: kg/f, higher better)	30	6.36	6.3	0.03	0%	MD: 0.61 CI Low: -0.01 CI High: 1.23	C (lowered to C- due to statistical significance)

	C: Control (Information on joint protection and on energy conservation)		30	5.78	5.69				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Palmar, Dominant hand: kg/f, higher better)	30	5.18	5.18	-0.26	-5%	MD: 0.39 CI Low: -0.2 CI High: 0.98	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information on joint protection and on energy conservation)		30	4.53	4.79				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Palmar, Non-dominant hand: kg/f, higher better)	30	4.89	4.92	-0.23	-5%	MD: 0.5 CI Low: -0.1 CI High: 1.1	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information on joint protection and on energy conservation)		30	4.16	4.42				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index; kg/f: Kilogram-force



*Table 15:* Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation) versus Control (Information on joint protection and on energy conservation) (End of treatment: 12 weeks).

<b>Study</b>	<b>Study Groups: Intervention (I) and Control (C)</b>	<b>Outcome</b>	<b>No. of Patients</b>	<b>Baseline Mean</b>	<b>End of Study Mean</b>	<b>Absolute Benefit</b>	<b>Relative Difference in Change From Baseline</b>	<b>Mean Difference (MD) 95% Confidence Interval (CI)</b>	<b>Grade</b>
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pain [AUSCAN (0-20, lower better)]	30	7.9	4.97	-2.69	-33%	MD: -3.26 CI Low: -5.41 CI High: -1.11	A (lowered to B because sample size smaller than 100)
	C: Control (Information on joint protection and on energy conservation)		30	8.47	8.23				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pain [NPS (Dominant hand: 0- 10cm, lower better)]	30	6.33	3.8	-1.5	-24%	MD: -1.3 CI Low: -2.59 CI High: -0.01	A (lowered to B because sample size smaller than 100)
	C: Control (Information on joint protection and on energy conservation)		30	6.13	5.1				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pain [NPS (Non- dominant hand: 0- 10cm, lower better)]	30	5.67	3.77	-1.07	-18%	MD: -1.33 CI Low: -2.62 CI High: -0.04	A (lowered to B because sample size smaller than 100)
	C: Control (Information on joint protection and on energy conservation)		30	5.93	5.1				

Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Stiffness [AUSCAN (0-4, lower better)]	30	1.97	1.17	-0.73	-35%	MD: -0.96 CI Low : -1.58 CI High: -0.34	A (lowered to B because sample size smaller than 100)
	C: Control (Information on joint protection and on energy conservation)		30	2.2	2.13				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Physical Function [AUSCAN (0-36, lower better)]	30	12.67	8.77	-3.7	-28%	MD: -5.03 CI Low: -8.78 CI High: -1.28	A (lowered to B because sample size smaller than 100)
	C: Control (Information on joint protection and on energy conservation)		30	14	13.8				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Key, Non-dominant hand: kg/f, higher better)	30	5.88	7.76	1.73	31%	MD: 2.43 CI Low: -0.81 CI High: 5.67	C+
	C: Control (Information on joint protection and on energy conservation)		30	5.18	5.33				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Grip Strength (Dominant hand: kg/f, higher better)	30	17.7	19.1	0.98	6%	MD: 3.5 CI Low: 1.02 CI High: 5.98	C
	C: Control (Information on joint protection and on energy conservation)		30	15.18	15.6				

Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Grip Strength (Non-dominant hand: kg/f, higher better)	30	16.5	17.8	1.1	7%	MD: 2.9 CI Low: 0.49 CI High: 5.31	C
	C: Control (Information on joint protection and on energy conservation)		30	14.7	14.9				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Palmar, Non-dominant hand: kg/f, higher better)	30	4.89	4.99	-0.14	-3%	MD: 0.59 CI Low: 0.06 CI High: 1.12	D (raised to C because figure favours intervention)
	C: Control (Information on joint protection and on energy conservation)		30	4.16	4.4				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Tip, Dominant hand: kg/f, higher better)	30	4.51	4.54	0.04	1%	MD: 0.44 CI Low: -0.16 CI High: 1.04	C (lowered to C- due to statistical significance)
	C: Control (Information on joint protection and on energy conservation)		30	4.11	4.1				

Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Tip, Non-dominant hand: kg/f, higher better)	30	5.39	4.31	-0.97	-21%	MD: 0.55 CI Low : 0 CI High: 1.1	D (lowered to D- due to statistical significance, raised to C- because figure favours intervention)
	C: Control (Information on joint protection and on energy conservation)		30	3.87	3.76				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Key, Dominant hand: kg/f, higher better)	30	6.36	6.54	0.01	0%	MD: 0.59 CI Low: -0.07 CI High: 1.25	C (lowered to C- due to statistical significance)
	C: Control (Information on joint protection and on energy conservation)		30	5.78	5.95				
Nery et al., 2015	I: Hand exercise programme (Isotonic + Isometric exercise programme: Progressive + Information on joint protection and on energy conservation)	Pinch Strength (Palmar, Dominant hand: kg/f, higher better)	30	5.18	5.12	-0.24	-5%	MD: 0.41 CI Low: -0.16 CI High: 0.98	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information on joint protection and on energy conservation)		30	4.53	4.71				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index; kg/f: Kilogram-force

*Table 16: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based) versus Control (Usual care) (End of treatment: 12 weeks).*

<b>Study</b>	<b>Study Groups: Intervention (I) and Control (C)</b>	<b>Outcome</b>	<b>No. of Patients</b>	<b>Baseline Mean</b>	<b>End of Study Mean</b>	<b>Absolute Benefit</b>	<b>Relative Difference in Change From Baseline</b>	<b>Mean Difference (MD) 95% Confidence Interval (CI)</b>	<b>Grade</b>
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Global Assessment [Patient Global Assessment of Disease Activity (NRS (0-10, lower better))]	65	4.3	3.7	-0.9	-21%	MD: -0.9 CI Low: -1.55 CI High: -0.25	A
	C: Control (Usual care)		65	4.3	4.6				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Pain [NRS (0-10, lower better)]	65	4.2	3.7	-1	-25%	MD: -0.7 CI Low: -1.41 CI High: 0.01	C+
	C: Control (Usual care)		65	3.9	4.4				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Stiffness [NRS (0-10, lower better)]	65	4.6	3.9	-0.7	-15%	MD: -0.6 CI Low: -1.29 CI High: 0.09	C+
	C: Control (Usual care)		65	4.5	4.5				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Physical Function [PSFS (0-10, higher better)]	65	3.5	5.1	1.2	32%	MD: 0.8 CI Low: -0.03 CI High: 1.63	C+

	C: Control (Usual care)		65	3.9	4.3				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Global Assessment [Patient Global Assessment of Disease Activity affecting ADL (NRS (0-10, lower better))]	65	4.1	3.6	-0.7	-18%	MD: -0.5 CI Low: -1.17 CI High: 0.16	C+
	C: Control (Usual care)		65	3.9	4.1				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	ROM [Thumb Web Space (Left hand: 0-12, higher better)]	65	5	6.1	0.9	17%	MD: 0.5 CI Low: -0.12 CI High: 1.12	C+
	C: Control (Usual care)		65	5.4	5.6				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Hand Dexterity (Right hand: seconds, lower better)	65	15.4	14.2	-1.4	-9%	MD: -1.3 CI Low: -3.17 CI High: 0.57	C
	C: Control (Usual care)		65	15.3	15.5				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Hand Dexterity (Left hand: seconds, lower better)	65	16.1	15.7	-0.4	-3%	MD: -0.2 CI Low: -2.78 CI High: 2.38	C
	C: Control (Usual care)		65	15.9	15.9				

Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Grip Strength (Left hand: kg, higher better)	65	21	22.3	1.7	8%	MD: 0 CI Low: -3.04 CI High: 3.04	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Usual care)		65	22.7	22.3				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	ROM [Thumb Web Space (Right hand: 0-12, higher better)]	65	4.9	6.1	0.4	8%	MD: 0 CI Low: -0.61 CI High: 0.61	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Usual care)		65	5.3	6.1				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Physical Function [FIHOA (0-30, lower better)]	65	10.8	10.3	-0.7	-7%	MD: 0.3 CI Low: -1.33 CI High: 1.93	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Usual care)		65	9.8	10				



Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Grip Strength (Right hand: kg, higher better)	65	22.7	23.5	1.1	5%	MD: -0.2 CI Low: -3.01 CI High: 2.61	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Usual care)		65	24	23.7				

CI: Confidence Interval; MD: Mean Difference; VAS: Visual Analogue Scale; NRS: Numerical rating scale FIHOA: Functional Index for Hand Osteoarthritis;  
kg: Kilogram

*Table 17: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based) versus Control (Usual care) (Follow-up: 12 weeks).*

<b>Study</b>	<b>Study Groups: Intervention (I) and Control (C)</b>	<b>Outcome</b>	<b>No. of Patients</b>	<b>Baseline Mean</b>	<b>End of Study Mean</b>	<b>Absolute Benefit</b>	<b>Relative Difference in Change From Baseline</b>	<b>Mean Difference (MD) 95% Confidence Interval (CI)</b>	<b>Grade</b>
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	ROM [Thumb Web Space of the Right Hand (0-12, higher better)]	65	4.9	5.8	0.8	16%	MD: 0.4 CI Low: -0.23 CI High: 1.03	C+
	C: Control (Usual care)		65	5.3	5.4				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Global Assessment [Patient Global Assessment of Disease Activity affecting ADL (NRS (0-10, lower better)]	65	4.1	3.8	-0.2	-5%	MD: 0 CI Low: -0.72 CI High: 0.72	C
	C: Control (Usual care)		65	3.9	3.8				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Stiffness [NRS (0-10, lower better)]	65	4.6	4.4	-0.4	-9%	MD: -0.3 CI Low: -1.01 CI High: 0.41	C (lowered to C- due to statistical significance )
	C: Control (Usual care)		65	4.5	4.7				

Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	ROM [Thumb Web Space of the Left Hand (0-12)]	65	5	5.8	0.7	13%	MD: 0.3 CI Low: -0.39 CI High: 0.99	C (lowered to C- due to statistical significance)
	C: Control (Usual care)		65	5.4	5.5				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Pain [NRS (0-10, lower better)]	65	4.2	4.3	-0.3	-7%	MD: 0 CI Low: -0.76 CI High: 0.76	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Usual care)		65	3.9	4.3				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Physical Function [FIHOA (0-30, lower better)]	65	10.8	10.9	-0.6	-6%	MD: 0.4 CI Low: -1.37 CI High: 2.17	C (lowered to C- due to statistical significance, lowered to D- because figure favours control)
	C: Control (Usual care)		65	9.8	10.5				

Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Physical Function [PSFS (0-10, higher better)]	65	3.5	4.3	0.3	8%	MD: -0.1 CI Low: -0.98 CI High: 0.78	C (lowered to D because figure favours control, lowered to D- due to statistical significance )
	C: Control (Usual care)		65	3.9	4.4				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Grip Strength (Right hand: kg, higher better)	65	22.7	22.1	1	4%	MD: -0.3 CI Low: -3.19 CI High: 2.59	C (lowered to D because figure favours control, lowered to D- due to statistical significance )
	C: Control (Usual care)		65	24	22.4				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Grip Strength (Left hand: kg, higher better)	65	21	20	0.2	1%	MD: -1.5 CI Low: -4.65 CI High: 1.65	C (lowered to D because figure favours control, lowered to D- due to statistical significance )

	C: Control (Usual care)		65	22.7	21.5				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Global Assessment [Patient Global Assessment of Disease Activity (NRS (0-10, lower better)]	65	4.3	4.2	0.1	2%	MD: 0.1 CI Low: -0.61 CI High: 0.81	D
	C: Control (Usual care)		65	4.3	4.1				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Hand Dexterity (Right hand: seconds, lower better)	65	15.4	16.2	0.7	5%	MD: 0.8 CI Low: -2.24 CI High: 3.84	D
	C: Control (Usual care)		65	15.3	15.4				
Østerås et al., 2014	I: Hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Home and Clinic-based)	Hand Dexterity (Left hand: seconds, lower better)	65	16.1	18	2	13%	MD: 2.2 CI Low: -2.39 CI High: 6.79	D
	C: Control (Usual care)		65	15.9	15.8				

CI: Confidence Interval; MD: Mean Difference; VAS: Visual Analogue Scale; NRS: Numerical rating scale FIHOA: Functional Index for Hand Osteoarthritis; PSFS: Patient-Specific Functional Scale; kg: Kilogram

*Table 18: Hand exercise programme (ROM + Stretch + Isotonic exercise programme: Non -Progressive + Home-based + Information (Oral and written) on joint protection for activities of daily living) versus Control (Information (Oral and written) on joint anatomy and on pathogenesis of HOA + Piece of nonslip matting) (End of treatment: 12 weeks).*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Stamm et al., 2002	I: Hand exercise programme (ROM + Stretch + Isotonic exercise programme: Non -Progressive + Home-based + Information (Oral and written) on joint protection for activities of daily living)	Grip Strength [Right hand (kPa, higher better)]	20	0.43	0.55	0.09	19%	MD: -0.02 CI Low: -0.13 CI High: 0.09	C+ (lowered to D+ because figure favours control)
	C: versus Control (Information (Oral and written) on joint anatomy and on pathogenesis of HOA + Piece of nonslip matting)		20	0.54	0.57				
Stamm et al., 2002	I: Hand exercise programme (ROM + Stretch + Isotonic exercise programme: Non -Progressive + Home-based + Information (Oral and written) on joint protection for activities of daily living)	Grip Strength [Left hand (kPa, higher better)]	20	0.44	0.55	0.08	16%	MD: -0.01 CI Low: -0.16 CI High: 0.14	C+ (lowered to D+ because figure favours control)
	C: versus Control (Information (Oral and written) on joint anatomy and on pathogenesis of HOA + Piece of nonslip matting)		20	0.53	0.56				

CI: Confidence Interval; MD: Mean Difference; kPa: Kilopascal

*Table 19: Hand exercise programme (ROM + Isotonic + Isometric exercise programme: Progressive Home-based + Orthosis/Joint protection + Daily log) versus Control (Sham moisturising cream + Daily log) (End of treatment: four weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Merritt et al., 2012	I: Hand exercise programme (ROM + Isotonic + Isometric exercise programme: Progressive Home-based + Orthosis/Joint protection + Daily log)	Pain [AUSCAN (0-20, lower better)]	11	24.8	9.6	-17.4	-81%	MD: -11.1 CI Low: -17.85 CI High: -4.35	A (lowered to B because sample size smaller than 100)
	C: Control (Sham moisturising cream + Daily log)		12	18.5	20.7				
Merritt et al., 2012	I: Hand exercise programme (ROM + Isotonic + Isometric exercise programme: Progressive Home-based + Orthosis/Joint protection + Daily log)	Pain [VAS (0-10cm, lower better)]	11	4.2	1.6	-3.3	-98%	MD: -1.7 CI Low: -3.4 CI High: 0	C+
	C: Control (Sham moisturising cream + Daily log)		12	2.6	3.3				
Merritt et al., 2012	I: Hand exercise programme (ROM + Isotonic + Isometric exercise programme: Progressive Home-based + Orthosis/Joint protection + Daily log)	Stiffness [AUSCAN (0-4, lower better)]	11	4.2	2.2	-2	-54%	MD: -1 CI Low: -2.84 CI High: 0.84	C+
	C: Control (Sham moisturising cream + Daily log)		12	3.2	3.2				
Merritt et al., 2012	I: Hand exercise programme (ROM + Isotonic + Isometric exercise programme: Progressive Home-based + Orthosis/Joint protection + Daily log)	Physical Function [AUSCAN (0-36, lower better)]	11	43.1	27.7	-20.8	-54%	MD: -12.3 CI Low: -27.91 CI High: 3.31	C+

	C: Control (Sham moisturising cream + Daily log)		12	34.6	40				
Merritt et al., 2012	I: Hand exercise programme (ROM + Isotonic + Isometric exercise programme: Progressive Home-based + Orthosis/Joint protection + Daily log)	Pinch Strength (Lateral: lbs, higher better)	11	11.7	13.5	2.4	19%	MD: 0.9 CI Low: -2.96 CI High: 4.76	C+
	C: Control (Sham moisturising cream + Daily log)		12	13.2	12.6				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index; VAS: Visual Analogue Scale; lbs: Pound



*Table 20: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed)) versus Control (Information (Oral and written leaflet) on OA and on exercises for HOA) (End of treatment: 12 weeks)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Physical Function [AUSCAN (0-36, lower better)]	76	21	18.6	0.6	3%	MD: -0.2 CI Low: -2.39 CI High: 1.99	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	21.8	18.8				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Physical Function [Participation (COPM (0-10, higher better)]	76	4.7	5.3	0.3	6%	MD: 0.1 CI Low: -0.38 CI High: 0.58	C (lowered to C- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	4.9	5.2				

Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	ROM [Thumb Opposition (Kapandji (0-10, higher better))]	76	8.7	9.05	0.05	1%	MD: 0.05 CI Low: -0.28 CI High: 0.38	C (lowered to C- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	8.7	9				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Pain Coping [Transformation (PCI (0-4, higher better))]	76	2.4	2.3	0	0%	MD: 0 CI Low: -0.21 CI High: 0.21	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	2.4	2.3				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Pain Coping [Distracting (PCI (0-4, higher better))]	76	2.5	2.5	0	0%	MD: 0 CI Low: -0.19 CI High: 0.19	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)

	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	2.5	2.5				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Pain Coping [Demands (PCI (0-4, higher better))]	76	2.2	2.3	0	0%	MD: 0 CI Low: -0.18 CI High: 0.18	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	2.2	2.3				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Pain Coping [Retreatin g (PCI (0-4, higher better))]	76	1.6	1.6	0.1	6%	MD: 0 CI Low: -0.13 CI High: 0.13	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	1.7	1.6				

Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Pain Coping [Worrying (PCI (0-4, higher better))]	76	1.7	1.7	0	0%	MD: 0 CI Low: -0.13 CI High: 0.13	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	1.7	1.7				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Pain Coping [Resting (PCI (0-4, higher better))]	76	2	2	0	0%	MD: 0 CI Low: -0.14 CI High: 0.14	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	2	2				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Pain [AUSCAN (0-20, lower better)]	76	10.4	9.4	0.2	2%	MD: 0.4 CI Low: -0.65 CI High: 1.45	D (lowered to D- due to statistical significance)

	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	10.2	9				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Self-efficacy [Pain ASES (1-100, higher better)]	76	60.1	59.3	2.1	3%	MD: -1.8 CI Low: -6.05 CI High: 2.45	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	64	61.1				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Stiffness [AUSCAN (0-4, lower better)]	76	2.3	2.2	0.2	9%	MD: 0.1 CI Low: -0.17 CI High: 0.37	D (lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	2.4	2.1				

Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Self-efficacy [Physical function ASES (1-100, higher better)]	76	73.5	70.4	-2.5	-3%	MD: -2.5 CI Low: -7.6 CI High: 2.6	D (lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	73.5	72.9				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Grip Strength (kg, higher better)	76	19.9	20.9	-0.3	-1%	MD: -2.2 CI Low: -5.25 CI High: 0.85	D (lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	21.8	23.1				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Pinch Strength (kg, higher better)	76	2.8	2.9	0	0%	MD: -0.2 CI Low: -0.63 CI High: 0.23	C (lowered to D because figure favours control, lowered to D- due to statistical significance)

	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	3	3.1				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Grip Strength [Lateral (kg, higher better)]	76	5.4	5.4	0	0%	MD: -0.3 CI Low: -1.03 CI High: 0.43	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	5.7	5.7				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	ROM [EPM (0-27, lower better)]	76	3.4	3.3	0.1	3%	MD: 0.1 CI Low: -0.53 CI High: 0.73	D (lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	3.4	3.2				

Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	QoL SF-36 (Physical: 0-100, higher better)	76	39.5	39.8	-0.2	-1%	MD: -0.1 CI Low: -2.24 CI High: 2.04	D (lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	39.4	39.9				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	QoL SF-36 (Mental: 0-100, higher better)	76	49.7	50.3	-0.3	-1%	MD: -1.3 CI Low: -4.36 CI High: 1.76	D (lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	50.7	51.6				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Global Assessment [Patient Global Assessment (0-100, higher better)]	76	49.5	60.4	-3.8	-8%	MD: -5.6 CI Low: -12.17 CI High: 0.97	D (lowered to D- due to statistical significance)



	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	51.3	66				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Self-efficacy [General Dutch (10-40, higher better)]	76	33.1	32.1	-1.1	-3%	MD: -0.5 CI Low: -1.94 CI High: 0.94	D (lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	32.5	32.6				
Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Self-efficacy [Other symptoms ASES (1-100, higher better)]	76	66	65.5	0.4	1%	MD: -2.2 CI Low: -6.7 CI High: 2.3	C (lowered to D because figure favours control, lowered to D- due to statistical significance)
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	68.6	67.7				

Stukstette et al., 2013	I: Hand exercise programme (ROM + Isotonic + Isometric + Coordination exercise programme: Non -Progressive + Home and Clinic-based + Information (Oral and written leaflet) on OA, on exercises for HOA, on self-efficacy, on ergonomics + Orthosis referral (if needed))	Physical Function [Activity (COPM (1-10, higher better)]	76	5.3	5.2	-0.1	-2%	MD: -0.3 CI Low: -0.59 CI High: -0.01	D
	C: Control (Information (Oral and written leaflet) on OA and on exercises for HOA)		75	5.5	5.5				

CI: Confidence Interval; MD: Mean Difference; AUSCAN: Australian/Canadian Osteoarthritis Hand Index; kg: Kilogram

*Table 21: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention) versus Control (Inactive doses of pulsed ultrasound) (End of treatment: 1 month)*

Study	Study Groups: Intervention (I) and Control (C)	Outcome	No. of Patients	Baseline Mean	End of Study Mean	Absolute Benefit	Relative Difference in Change From Baseline	Mean Difference (MD) 95% Confidence Interval (CI)	Grade
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Pain [VAS (0-10cm, lower better)]	30	5	1.9	-3	-60%	MD: -3 CI Low: -3.13 CI High: -2.87	A (lowered to B because sample size smaller than 100)
	C: Control (Inactive doses of pulsed ultrasound)		30	5	4.9				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Affected Hamate Bone (kg/cm <sup>2</sup> , higher better)]	30	5.5	6.5	1	18%	MD: 1.0 CI Low: 0.82 CI High: 1.18	A (Lowered to B because sample size smaller than 100)
	C: Control (Inactive doses of pulsed ultrasound)		30	5.5	5.5				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Grip Strength [Affected hand (kg, higher better)]	30	10.6	11.4	0.9	8%	MD: 0.8 CI Low: 0.22 CI High: 1.38	C
	C: Control (Inactive doses of pulsed ultrasound)		30	10.7	10.6				

Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Pinch Strength (Non-affected hand: kg, higher better)	30	2.3	2.4	0	0%	MD: 0.2 CI Low: 0.1 CI High: 0.3	C
	C: Control (Inactive doses of pulsed ultrasound)		30	2.1	2.2				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Affected Lateral Epicondyle (Kg/cm <sup>2</sup> , higher better)]	30	5.9	6.3	0.3	5%	MD: 0.7 CI Low: 0.5 CI High: 0.9	C
	C: Control (Inactive doses of pulsed ultrasound)		30	5.5	5.6				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Non-affected Lateral Epicondyle (Kg/cm <sup>2</sup> , higher better)]	30	5.1	5.8	0.7	14%	MD: 0.7 CI Low: 0.55 CI High: 0.85	C
	C: Control (Inactive doses of pulsed ultrasound)		30	5.1	5.1				

Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Affected Carpomet acarpal Joint (Kg/cm <sup>2</sup> , higher better)]	30	3.3	3.7	0.4	12%	MD: 0.3 CI Low: 0.2 CI High: 0.4	C
	C: Control (Inactive doses of pulsed ultrasound)		30	3.4	3.4				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Non-affected Carpomet acarpal Joint (Kg/cm <sup>2</sup> , higher better)]	30	3.2	3.5	0.3	9%	MD: 0.2 CI Low: 0.1 CI High: 0.3	C
	C: Control (Inactive doses of pulsed ultrasound)		30	3.3	3.3				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Non-affected Hamate Bone (Kg/cm <sup>2</sup> , higher better)]	30	5.4	5.9	0.4	7%	MD: 0.3 CI Low: 0.12 CI High: 0.48	C
	C: Control (Inactive doses of pulsed ultrasound)		30	5.5	5.6				

Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Pinch Strength [Affected hand (kg, higher better)]	30	2.3	2.3	0.1	4%	MD: 0.1 CI Low: 0 CI High: 0.2	C (lowered to C- due to statistical significance)
	C: Control (Inactive doses of pulsed ultrasound)		30	2.3	2.2				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Grip Strength [Non-affected hand (kg, higher better)]	30	10.3	10	-0.2	-2%	MD: 0 CI Low: -0.64 CI High: 0.64	D (lowered to D- due to statistical significance, raised to C-/D- because figure is neutral)
	C: Control (Inactive doses of pulsed ultrasound)		30	10.1	10				

CI: Confidence Interval; MD: Mean Difference; VAS: Visual Analogue Scale; kg: Kilogram

*Table 22: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention) versus Control (Inactive doses of pulsed ultrasound) (Follow-up: 1 month)*

<b>Study</b>	<b>Study Groups: Intervention (I) and Control (C)</b>	<b>Outcome</b>	<b>No. of Patients</b>	<b>Baseline Mean</b>	<b>End of Study Mean</b>	<b>Absolute Benefit</b>	<b>Relative Difference in Change From Baseline</b>	<b>Mean Difference (MD) 95% Confidence Interval (CI)</b>	<b>Grade</b>
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Pain [VAS (0-10cm, lower better)]	30	5	1.5	-2.9	-58%	MD: -2.9 CI Low: -3.03 CI High: -2.77	A (lowered to B because sample size smaller than 100)
	C: Control (Inactive doses of pulsed ultrasound)		30	5	4.4				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Grip Strength [Affected hand (kg, higher better)]	30	10.6	11.5	1	9%	MD: 0.9 CI Low: 0.32 CI High: 1.48	C
	C: Control (Inactive doses of pulsed ultrasound)		30	10.7	10.6				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Affected Carpometacarpal Joint (Kg/cm <sup>2</sup> , higher better)]	30	3.3	3.7	0.4	12%	MD: 0.3 CI Low: 0.17 CI High: 0.43	C
	C: Control (Inactive doses of pulsed ultrasound)		30	3.4	3.4				

Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Affected Hamate Bone (kg/cm <sup>2</sup> , higher better)]	30	5.5	6	0.3	5%	MD: 0.3 CI Low: 0.15 CI High: 0.45	C
	C: Control (Inactive doses of pulsed ultrasound)		30	5.5	5.7				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Non-affected Hamate Bone (Kg/cm <sup>2</sup> , higher better)]	30	5.4	5.9	0.6	11%	MD: 0.5 CI Low: 0.32 CI High: 0.68	C
	C: Control (Inactive doses of pulsed ultrasound)		30	5.5	5.4				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Grip Strength [Non-affected hand (kg, higher better)]	30	10.3	10.3	0.1	1%	MD: 0.3 CI Low: -0.34 CI High: 0.94	C (lowered to C- due to statistical significance)
	C: Control (Inactive doses of pulsed ultrasound)		30	10.1	10				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Pinch Strength [Affected hand (kg g, higher better)]	30	2.3	2.3	0.1	4%	MD: 0.1 CI Low: 0 CI High: 0.2	C (lowered to C- due to statistical significance)
	C: Control (Inactive doses of pulsed ultrasound)		30	2.3	2.2				



Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Pinch Strength (Non-affected hand: kg, higher better)	30	2.3	2.2	-0.1	-5%	MD: 0.1 CI Low: 0 CI High: 0.2	D (raised to C because figure favours intervention, lowered to C- due to statistical significance)
	C: Control (Inactive doses of pulsed ultrasound)		30	2.1	2.1				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Non-affected Lateral Epicondyle (Kg/cm <sup>2</sup> , higher better)]	30	5.1	5.5	0.1	2%	MD: 0.1 CI Low: -0.08 CI High: 0.28	C (lowered to C- due to statistical significance)
	C: Control (Inactive doses of pulsed ultrasound)		30	5.1	5.4				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Non-affected Carpometacarpal Joint (Kg/cm <sup>2</sup> , higher better)]	30	3.2	3.4	0.1	3%	MD: 0 CI Low: -0.16 CI High: 0.16	C (lowered to C- due to statistical significance)
	C: Control (Inactive doses of pulsed ultrasound)		30	3.3	3.4				

Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Affected Lateral Epicondyle (Kg/cm <sup>2</sup> , higher better)]	30	5.9	5.8	-0.4	-7%	MD: 0 CI Low: -0.15 CI High: 0.15	D (lowered to D- due to statistical significance, raised to C-/D- because figure is neutral)
	C: Control (Inactive doses of pulsed ultrasound)		30	5.5	5.8				

CI: Confidence Interval; MD: Mean Difference; VAS: Visual Analogue Scale; kg: Kilogram

*Table 23: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention) versus Control (Inactive doses of pulsed ultrasound) (Follow-up: 2 months)*

<b>Study</b>	<b>Study Groups: Intervention (I) and Control (C)</b>	<b>Outcome</b>	<b>No. of Patients</b>	<b>Baseline Mean</b>	<b>End of Study Mean</b>	<b>Absolute Benefit</b>	<b>Relative Difference in Change From Baseline</b>	<b>Mean Difference (MD) 95% Confidence Interval (CI)</b>	<b>Grade</b>
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Pain [VAS (0-10cm, lower better)]	30	5	1.5	-2.9	-58%	MD: -2.9 CI Low: -3.03 CI High: -2.77	A (lowered to B because sample size smaller than 100)
	C: Control (Inactive doses of pulsed ultrasound)		30	5	4.4				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Affected Lateral Epicondyle (Kg/cm <sup>2</sup> , higher better)]	30	5.9	5.7	-0.2	-4%	MD: 0.2 CI Low: 0.02 CI High: 0.38	D (raised to C because figure favours intervention)
	C: Control (Inactive doses of pulsed ultrasound)		30	5.5	5.5				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Non-affected Lateral Epicondyle (Kg/cm <sup>2</sup> , higher better)]	30	5.1	5.6	0.7	14%	MD: 0.7 CI Low: 0.55 CI High: 0.85	C
	C: Control (Inactive doses of pulsed ultrasound)		30	5.1	4.9				

Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Affected Carpometacarpal Joint (Kg/cm <sup>2</sup> , higher better)]	30	3.3	3.7	0.4	12%	MD: 0.3 CI Low: 0.17 CI High: 0.43	C
	C: Control (Inactive doses of pulsed ultrasound)		30	3.4	3.4				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Affected Hamate Bone (kg/cm <sup>2</sup> , higher better)]	30	5.5	6.1	0.7	13%	MD: 0.7 CI Low: 0.52 CI High: 0.88	C
	C: Control (Inactive doses of pulsed ultrasound)		30	5.5	5.4				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Non-affected Hamate Bone (Kg/cm <sup>2</sup> , higher better)]	30	5.4	5.9	0.4	7%	MD: 0.3 CI Low: 0.12 CI High: 0.48	C
	C: Control (Inactive doses of pulsed ultrasound)		30	5.5	5.6				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Grip Strength [Affected hand (kg, higher better)]	30	10.6	11.1	0.6	6%	MD: 0.5 CI Low: -0.6 CI High: 1.06	C (lowered to C- due to statistical significance)
	C: Control (Inactive doses of pulsed ultrasound)		30	10.7	10.6				

Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Grip Strength [Non-affected hand (kg, higher better)]	30	10.3	10.2	0.1	1%	MD: 0.3 CI Low: -0.34 CI High: 0.94	C (lowered to C- due to statistical significance)
	C: Control (Inactive doses of pulsed ultrasound)		30	10.1	9.9				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	PPT [Non-affected Carpometacarpal Joint (Kg/cm <sup>2</sup> , higher better)]	30	3.2	3.3	0.2	6%	MD: 0.1 CI Low: 0 CI High: 0.2	C (lowered to C- due to statistical significance)
	C: Control (Inactive doses of pulsed ultrasound)		30	3.3	3.2				
Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Pinch Strength [Affected hand (kg g, higher better)]	30	2.3	2.3	0	0%	MD: 0 CI Low: -0.1 CI High: 0.1	C (lowered to C- due to statistical significance, lowered to C-/D- because figure is neutral)
	C: Control (Inactive doses of pulsed ultrasound)		30	2.3	2.3				

Villafane et al., 2013	I: Hand and hand exercise programme (ROM + Stretch + Isotonic + Isometric exercise programme: Progressive + Clinic-based + Joint mobilisation + Neurodynamic intervention)	Pinch Strength (Non-affected hand: kg, higher better)	30	2.3	2.2	-0.2	-9%	MD: 0 CI Low: -0.13 CI High: 0.13	D (lowered to D- due to statistical significance, raised to C-/D- because figure is neutral)
	C: Control (Inactive doses of pulsed ultrasound)		30	2.1	2.2				

CI: Confidence Interval; MD: Mean Difference; VAS: Visual Analogue Scale; kg: Kilogram