B.3 Spinal manipulative therapy (SMT)

Overview of the PICO structure

Definition of the	intervention
high-velocity, low manipulation) and while manipulatio	ve therapy (SMT) is considered to be any "hands-on" treatment that involves movement of the spinal joints, including both -amplitude manipulation and low-velocity, low-amplitude mobilization. Mobilization uses low-grade velocity (relative to d small- or large-amplitude passive movement techniques within the person's spinal joint range of motion and control, on uses a high-velocity impulse or thrust applied to a synovial joint over a short amplitude at, or close to, the end of the logical range of motion, which is often accompanied by an audible "crack".
PICO question	
Population and subgroups	 Community-dwelling adults (aged 20 years and over) experiencing chronic primary low back pain, with or without leg pain, including older people (aged 60 years and older). Subgroups: Age (all adults and those aged 60 years and over) Gender and/or sex Presence of leg pain (radicular, non-radicular, mixed) Race/ethnicity - studies of populations who were historically marginalized compared with studies of those who were not Regional economic development - studies carried out in high-income countries compared with studies in low- to middle-income countries
Comparators	 a) Placebo/sham b) No or minimal intervention, or where the effect of the intervention can be isolated c) Usual care (described as usual care in the trial) d) Adjuvant therapy, i.e. where the additional effect of the intervention could be isolated

Outcomes	Critical outcomes constructs (all adults) Critical outcomes constructs (older adults, aged ≥ 60 years)
	• Pain
	 Back-specific function/disability
	General function/disability
	Health-related quality of life
	Psychosocial function
	Social participation
	Adverse events (as reported in trials) Pain
	 Back-specific function/disability
	General function/disability
	Health-related quality of life
	Psychosocial function
	 Adverse events (as reported in trials)
	Change in the use of medications
	• Falls

Other Evidence-to-Decision (EtD) considerations

Summary of values and preferences							
All adults	Older people						
No evidence synthesis commissioned for all adults. Judgements made based on experience of GDG members	No evidence identified						

Summary of resource considerations				
All adults	Older people			

No evidence synthesis commissioned for all adults. Judgements made	No evidence identified
based on experience of GDG members	

Summary of equity and human rights considerations							
All adults	Older people						
No evidence synthesis commissioned for all adults. Judgements made based on experience of GDG members	No evidence identified						

Summary of acceptability considerations							
All adults	Older people						
No evidence synthesis commissioned for all adults. Judgements made based on experience of GDG members	No evidence identified.						

Summary of <i>feasibility considerations</i>							
All adults	Older people						
No evidence synthesis commissioned for all adults. Judgements made based on experience of GDG members	No evidence identified						

Summary of judgements

Domain	All adults	Older people
Benefits	Moderate; small; trivial; uncertain; varies	Moderate; small; trivial; uncertain
Harms	Small; trivial; uncertain	Small; trivial; uncertain

Balance benefits to harms	Probably favours SMT; probably does not favour SMT; uncertain	Probably favours SMT; probably does not favour SMT; uncertain			
Overall certainty	Very low; low	Very low			
Values and preferences	Probably important uncertainty or variability; possibly important uncertainty or variability	Probably important uncertainty or variability; possibly important uncertainty or variability			
Resource considerations	Moderate costs; varies	Moderate costs; varies			
Equity and human rights	No impact; probably reduced (traction especially); uncertain; varies	No impact; probably reduced (traction especially); uncertain; varies			
Acceptability	Yes; probably yes; probably no; uncertain; varies	Yes; probably yes; probably no; uncertain; varies			
Feasibility	Yes; probably yes; varies	Yes; probably yes; varies			

GRADE Table 1. What are the benefits and harms of SMT in the management of community-dwelling adults (including older adults aged 60 years and over) with chronic primary low back pain (with or without leg pain) compared with sham SMT/placebo treatment?

Certainty assessment						Nº of	patients	Eff	ect		luonenten	
№ of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importan ce

Pain intensity (higher scores mean more pain)

Pain - Pain at 1 month

15	randomize d trials	serious ^a	serious ^b	not serious⁰	serious ^d	none	719	683	-	MD 6.07 lower (13.09 lower to 0.95 higher)	⊕⊖⊖⊖ Very low	
•			• •	ogroup analysis per	,							
11	randomized trials	seriousª	serious ^b	serious⁰	serious ^d	none	670	614	-	MD 4.9 lower (14.57 lower to 4.77 higher)	⊕⊖⊖ ⊖ Very low	

opulation subgroup 4: regional economic development – low- or lower middle-income countries

4	randomi zed trials	serious ^e	not serious ^f	serious ^g	very serious ^h	none	88	122	-	MD 8.25 lower (14.62 lower to 1.88 lower)	⊕⊖⊖⊖ Very low		
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Population subgroup 5: participants over 60 years of age

			Certainty ass	sessment			Nº of	patients	Effe	ect		lucus e ut e u			
Nº of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importan ce			
1	randomized trials	seriousª	serious ^r	serious ⁱ	very serious ^h	none	69	67	-	MD 2.48 lower (9.87 lower to 4.91 higher)	⊕⊖⊖⊖ Very low				
Pain - Pai	ain - Pain at 3 months														
8	randomized trials	seriousª	seriousi	not serious∘	serious ^m	none	514	449	-	MD 0.9 lower (4.68 lower to 2.87 higher)	O Very low				
Populatio	on subgroups 1	, 2 and 3 - not	reported (no subgro	oup analysis perforn	ned)	•	•	*		•	·				
Populatio	on subgroup 4:	regional econo	omic development	- high-income cou	ntries										
6	randomized trials	seriousª	serious ⁱ	not serious ^c	serious ^s	none	494	412	-	MD 0.78 lower (6.00 lower to 4.43	the second				

Population subgroup 4: regional economic development - low- or lower middle-income income countries

2	randomized trials	serious ^e	not serious ^r	serious ^g	very serious ^h	none	58	69	-	MD 0.49 lower (3.83 lower to 2.84 higher)	⊕⊖⊖⊖ Very low	
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Population subgroup 5: participants over 60 years of age

higher)

		Certainty ass	sessment			Nº of	patients	Eff	ect		
Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importar ce
randomized trials	seriousª	serious ^r	serious ⁱ	very serious ^h	none	69	66	-	MD 2.22 lower (9.96 lower to 5.52 higher)	⊕⊖⊖⊖ Very low	
n at 6 months											
randomized trials	serious ^k	serious ⁱ	serious ^g	very serious ^h	none	58	56	-	MD 0.96 higher (6.34 lower to 8.26 higher)	⊕⊖⊖⊖ Very low)
n subgroup 4:	regional econo	mic development	- high-income co	untries		•	!		•		
randomized trials	very serious ^e	serious ^r	serious ^g	very serious ^h	none	32	19	-	MD 7.1 higher (5.16 lower to 19.36 higher)	O Very low)
n subgroup 4:	regional econo	mic development	- low- or lower mi	ddle-income incon	ne countries			!			!
randomized trials	serious ^m	serious ^r	serious ^g	very serious ^h	none	26	37	-	MD 1.3 lower (6.31 lower to 3.71	O Very low)
	design randomized trials n at 6 months randomized trials n subgroup 4: randomized trials	design Kisk of blas randomized trials serious ^a n at 6 months serious ^k randomized trials serious ^k n subgroup 4: regional econo randomized trials very serious ^a n subgroup 4: regional econo randomized serious ^a	Study designRisk of biasInconsistenc yrandomized trialsseriousaseriousra t 6 monthsseriouskseriouskrandomized trialsseriouskseriousln subgroup 4: regional economic development trialsvery seriouseseriousrrandomized trialsvery seriouseseriousrn subgroup 4: regional economic development trialsseriousrrandomized trialsvery seriouseseriousrseriouseseriouseseriousr	design Kisk of blas y Hulfectness randomized trials serious ^a serious ^r serious ⁱ n at 6 months serious ^k serious ⁱ serious ^g randomized trials serious ^k serious ⁱ serious ^g n subgroup 4: regional economic development - high-income con trials very serious ^g serious ^r serious ^g n subgroup 4: regional economic development - high-income con trials very serious ^g serious ^r serious ^g n subgroup 4: regional economic development - low- or lower mi randomized serious ^m serious ^r serious ^g	Study designRisk of biasInconsistenc yIndirectnessImprecisionrandomized trialsseriousaseriousaseriousrseriousavery serioushn at 6 monthsrandomized trialsseriouskseriousaseriousavery serioushrandomized trialsseriouskseriousaseriousavery serioushn at 6 monthsrandomized trialsseriouskseriousaseriousavery serioushn subgroup 4: regional economic development - high-income countriesvery serioushvery serioushrandomized trialsvery seriousaseriousrseriousavery serioushn subgroup 4: regional economic development - low- or lower middle-income incom randomized seriousaseriousavery serioush	Study designRisk of biasInconsistenc yIndirectnessImprecisionOther considerationsrandomized trialsserious ^a serious'serious'seriousivery serioushnonen at 6 monthsrandomized trialsseriouskseriouslseriousgvery serioushnonerandomized trialsseriouskseriouslseriousgvery serioushnonerandomized trialsseriouskseriousgseriousgvery serioushnonen subgroup 4: regional economic development - high-income countriesrandomized seriousgvery serioushnonerandomized trialsvery seriousgseriousgseriousgvery serioushnonen subgroup 4: regional economic development - low- or lower middle-income income countriesnonenonerandomized trialsseriousmseriousgseriousgvery serioushnone	Study designRisk of biasInconsistenc yIndirectnessImprecisionOther considerationsWHO SMTrandomized trialsseriousaseriousaseriousaseriousaseriousaseriousaseriousa69n at 6 monthsrandomized trialsseriousaseriousaseriousaseriousaseriousaseriousaseriousarandomized trialsseriousaseriousaseriousaseriousaseriousaseriousaseriousarandomized trialsseriousaseriousaseriousaseriousaseriousanone58n subgroup 4: regional economic development - high-income countriesseriousanone32n subgroup 4: regional economic development - low- or lower middle-income income countriesa32n subgroup 4: regional economic development - low- or lower middle-income income countriesa32	Study designRisk of biasInconsistenc yIndirectnessImprecisionOther considerationsWHO SMTSham/placebo SMTrandomized trialsseriousaseriousaseriousaseriousaseriousavery serioushnone6966n at 6 monthsrandomized trialsseriousaseriousaseriousaseriousavery serioushnone5856randomized trialsseriousaseriousaseriousaseriousavery serioushnone5856n subgroup 4: regional economic development - high-income countriesseriousavery serioushnone3219n subgroup 4: regional economic development - low- or lower middle-income income countriesnone2637	Study designRisk of biasInconsistenc yIndirectnessImprecisionOther considerationsWHO SMTsham/placebo SMTRelative (95% CI)randomized trialsseriousaseriousaseriousaseriousaseriousavery seriousanone6966-a t 6 monthsrandomized trialsseriousaseriousaseriousavery seriousanone5856-randomized trialsseriousaseriousaseriousavery seriousanone5856-n subgroup 4: regional economic development - high-income countriesseriousavery seriousanone3219-n subgroup 4: regional economic development - low- or lower middle-income income countriesseriousavery seriousanone3219-n subgroup 4: regional economic development - low- or lower middle-income income countriesseriousanone2637-	Study designRisk of biasInconsistenc yIndirectnessImprecisionOther considerationsWHO SMTsham/placebo SMTRelative (95% CI)Absolute (95% CI)randomized trialsserious*serious*serious*serious*very serious*none6966-MD 2.22 lower (9.96) lower to 5.52 higher)n at 6 monthsrandomized trialsserious*serious*serious*very serious*none5856-MD 0.96 higher)n at 6 monthsserious*serious*very serious*none5856-MD 0.96 higher)n subgroup 4: regional economic development - high-income countriesvery serious*none3219-MD 7.1 higher (5.16 lower to 0.93 higher)n subgroup 4: regional economic development - low- or lower middle-income income countriesserious*none2637-MD 1.3 lower to (5.16 lower to (5.16 lower to 19.36	Study design Risk of bias Inconsistenc y Indirectness Imprecision Other considerations WHO SMT sham/placebo SMT Relative (95% CI) Absolute (95% CI) Certainty randomized trials serious ^a serious ^a serious ^a serious ^a very serious ^a none 69 66 - MD 2.22 lower (9.96 lower to 5.52 higher) two very low lower to 5.52 higher)

trials trials intervent	CI) 0.2 her .33 er to 73 her) $(\oplus) (-)$	Importa ce
trials initial initia initial initial	Iher 33 Very low er to 73 her))
Population subgroup 4: regional economic development - high-income countries - not reported (no subgroup analysis performed; no trial reporting outcomes at this follower middle-income income countries 1 randomized trials serious ^m Serious ^r serious ^g very serious ^h none 26 37 - MD hig (5) low (5) l	w.up)	
Population subgroup 4: regional economic development - low- or lower middle-income income countries 1 randomized trials serious ^m Serious ^r serious ^g very serious ^h none 26 37 - MD hig (5) low 20 J Serious ^m Serious ^g very serious ^h none 26 37 - MD hig (5) low 9 Serious subgroup 5: participants over 60 years of age - not reported Serious subgroup 5: participants over 60 years of age - not reported Serious subgroup 5: participants over 60 years of age - not reported	(up)	
1 randomized trials serious ^m Serious ^r serious ^g very serious ^h none 26 37 - MD hig (5 low) Population subgroup 5: participants over 60 years of age - not reported	w-up)	
trials hig trials Image: second seco		
	0.2)
Back-specific functional status - back-specific functional status at 1 month		
trials trials	0 0.43 wer .74 ver to 12 ver) ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓)
Population subgroups 1, 2 and 3 - not reported (no subgroup analysis performed)		
Population subgroup 4: regional economic development - high-income countries		

			Certainty as	sessment			Nº of	patients	Effe	ect		luon enten
№ of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importan ce
9	randomized trials	serious ⁿ	serious ^b	not serious	° serious⁰	none	622	572	-	SMD 0.34 SD lower (0.68 lower to 0)	Very low	

Population subgroup 4: regional economic development - low- or lower middle-income income countries

3	randomized trials	serious ^e	serious ^p	serious ^g	very serious ^h	none	56	70	-	SMD 0.79 SD lower (1.36 lower to 0.21 lower)	⊕⊖⊖⊖ Very low	
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Population subgroup 5: participants over 60 years of age

1	randomized trials	seriousª	Serious ^r	serious ⁱ	very serious ^h	none	69	67	-	SMD 0.07 SD lower (0.4 lower to 0.27	⊕⊖⊖⊖ Very low	
										higher)		

Population subgroup 6: ODI

8	randomized trials	serious ⁿ	serious ^b	serious ^c	very serious ^h	none	214	250	-	SMD 0.65 SD lower (1.2 lower to 0.11 lower)	⊕⊖⊖⊖ Very low				
Populatio	Population subgroup 6: RMDQ														
4	randomized trials	serious ^a	serious ^b	not serious ^c	very serious ^h	none	398	325	-	SMD 0.71 SD lower (1.48 lower to 0.06 higher)	⊕⊖⊖⊖ Very low				

Back-specific functional status - back-specific functional status at 3 months

			Certainty ass	essment			Nº of	patients	Eff	ect		las a suta
№ of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importa ce
7	randomized trials	serious ⁿ	not serious ^f	not serious	s ^c serious ^s	none	512	449	-	SMD 0.14 SD lower (0.27 lower to 0.01 lower)		
Populatio	on subgroups 1	, 2 and 3 - not i	reported (no subgro	up analysis perfo	rmed)							
Populatio	on subgroup 4:	regional econo	omic development	high-income co	ountries							
5	randomized trials	serious ⁿ	not serious ^f	not serious	very serious ^d	none	454	380	-	SMD 0.14 SD lower (0.28 lower to 0)	O Very low	

Population subgroup 4: regional economic development - low- or lower middle-income income countries

2	randomized trials	seriouse	not serious ^f	serious ^g	very serious ^h	none	58	69	-	SMD 0.13 SD lower (0.18 lower to 0.22 higher)	⊕⊖⊖⊖ Very low	
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Population subgroup 5: participants over 60 years of age

1	randomized trials	serious ^a	serious ⁱ	serious ⁱ	very serious ^h	none	67	67	-	SMD 0.29 SD lower (0.63 lower to 0.05 higher)	⊕⊖⊖⊖ Very low	
Populatio	n subgroup 6: (DDI										

			Certainty ass	sessment			Nº of	patients	Eff	ect		
Nº of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importar ce
3	randomized trials	serious ⁿ	not serious ^f	serious ^g	very serious ^h	none	125	136	-	SMD 0.26 SD lower (0.48 lower to 0.03 lower)	⊕⊖⊖⊖ Very low	
Populatio	on subgroup 6:	RMDQ										
3	randomized trials	seriousª	not serious ^f	not serious ^c	very serious ^h	none	367	295	-	SMD 0.09 SD lower (0.24 lower to 0.07 higher)	⊕⊖⊖⊖ Very low	
Back-spe	cific functional	status - back-s	pecific functional	status at 6 month	s	•	•			•	•	
2	randomized trials	serious ^m	not serious	serious ^g	very serious ^h	none	58	56	-	SMD 0.12 lower (0.5 lower to 0.25 higher)		
Populatio	n subgroups 1	, 2 and 3 - not r	eported (no subgro	oup analysis perform	ned)	1	1	I	!		Į	!
Populatio	on subgroup 4:	regional econo	mic development	- high-income cou	Intries							
1	randomized trials	very serious ^e	serious ⁱ	serious ⁱ	very serious ^h	none	32	19	-	SMD 0.04 SD higher (0.52 lower to 0.61 higher)	Uery low	

Population subgroup 4: regional economic development - low- or lower middle-income income countries

			Certainty as	sessment			Nº of	f patients	Effe	ect		lucusenten
Nº of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importan ce
1	randomized trials	serious ^m	serious ⁱ	serious ⁱ	very serious ^h	none	26	37	-	SMD 0.25 SD lower (0.76 lower to 0.25 higher)		
	• .		er 60 years of age	e - not reported								
Populatio 1	n subgroup 6: randomized trials	serious ^m	serious ⁱ	serious ⁱ	very serious ^h	none	26	27	-	SMD 0.25 SD lower (0.76 lower to 0.25 higher)		
Populatio	n subgroup 6:	RMDQ								-		
1	randomized trials	very serious ^e	serious ⁱ	serious ⁱ	very serious ^h	none	32	19	-	SMD 0.04 SD higher (0.52 lower to 0.61 higher)		
Back-spe	cific functional	status - back-s	pecific functional	status 12 months								
1	randomized trials	serious ^m	serious ⁱ	serious ⁱ	very serious ^h	none	26	37	-	SMD 0.19 lower (0.69 lower to 0.31 higher)	⊕⊖⊖⊖ Very low	
Populatio	n subgroups 1	, 2 and 3 - not r	eported (no subgro	oup analysis perfor	med)			4			•	-
Populatio	n subgroup 4:	regional econo	mic development	- high-income cou	intries - not report	ed (no subgroup an	alysis perform	ed; one trial perforn	ned in high-inc	ome countries)	

			Certainty ass	sessment			Nº of	f patients	Eff	ect		luce and a
№ of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importar ce
Populatio	n subgroup 4:	regional econo	mic development	- low- or lower m	iddle-income incon	ne countries						
1 Populatio	randomized trials	serious ^m	serious ⁱ er 60 years of age	serious ⁱ	very serious ^h	none	26	37	-	SMD 0.19 SD lower (0.69 lower to 0.31 higher)	⊕⊖⊖⊖ Very low	
-	n subgroup 6:											
1	randomized trials	serious ^m	serious ⁱ	serious ⁱ	very serious ^h	none	26	37	-	SMD 0.19 SD lower (0.69 lower to 0.31 higher)	⊕⊖⊖⊖ Very low	

Health-related quality of life – Health-related quality of life at 1 month

1	randomized trials	very serious ^e	serious ^r	serious ⁱ	very serious ^h	none	26	37	-	MD 4.5 SD higher (0.46 higher to 8.54 higher)	⊕⊖⊖⊖ Very low	
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Health-related quality of life - Health-related quality of life at 3 months

	Certainty assessment Study design Risk of bias Inconsistenc y Indirectness Imprecision randomized trials very serious ^a serious ^{ir} serious ⁱ very serious ^h						Nº of	patients	Effe	ect		lun norton
Nº of trials		Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importan ce
1			serious ^{ir}	serious ⁱ	very serious ^h	none	26	37	-	MD 2.8 SD higher (1.24 lower to 6.84 higher)	O Very low	

Health-related quality of life – Health-related quality of life at 6 months

1	randomized trials	very seriousº	serious ^r	serious ⁱ	very serious ^h	none	26	37	-	MD 1.7 SD higher (2.34 lower to 5.74 higher)	⊕⊖⊖⊖ Very low		
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Health-related quality of life - Health-related quality of life at 12 months

1 random trial	d very serious ^e		serious ⁱ	very serious ^h	none	26	37	-	MD 1.7 SD higher (2.34 lower to 5.74 higher)	⊕⊖⊖⊖ Very low		
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Return to work - Return to work at 1 month

1	randomized trials	very serious ^e	serious ^{ir}	serious ⁱ	very serious ^h	none	1/2 (50.0%)	7/17 (41.2%)	RR 1.21 (0.27 to 5.43)	86 more per 1.000 (from 301 fewer to 1.000 more)	⊕⊖⊖⊖ Very low	
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Return to work - Return to work at 3 months

			Certainty ass	essment			Nº of	patients	Effe	ect		
№ of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importan ce
1	randomized trials	very serious ^e	serious ^{ir}	serious ⁱ	very serious ^h	none	2/3 (66.7%)) 11/17 (64.7%)	RR 1.03 (0.43 to 2.47)	19 more per 1.000 (from 369 fewer to 951 more)	⊕⊖⊖⊖ Very low	
General f	unctional statu	s (higher score	es mean less disab	ility)		•	•	ł			•	
General f	unctional statu	s - General fun	ctional status at 1	month								
2	randomized trials	serious ^m	serious ^b	not serious ^a	very serious ^h	none	111	90	-	SMD 0.57 higher (0.55 lower to 1.69 higher)	⊕⊖⊖⊖ Very low	
Populatio	on subgroups 1	, 2, 3 and 4 - no	ot reported (no sub	group analysis per	formed)	1	1		-	-	1	
Populatio	on subgroup 5:	participants ov	ver 60 years of age									
1	randomized trials	serious ^a	serious ^r	serious ⁱ	very serious ^h	none	69	67	-	SMD 0.02 SD higher (0.32 lower to 0.36 higher)	Uery low	

General functional status - General functional status at 3 months

2	randomized trials	serious ^m	not serious ^f	not serious°	very serious ^h	none	103	85	-	SMD 0.07 lower (0.36 lower to 0.22 higher)	⊕⊖⊖⊖ Very low	
Populatio	n subgroups 1,	2, 3 and 4 - r	ot reported (no subgrou	up analysis perforr	ned)							
Populatio	n subgroup 5: p	articipants o	over 60 years of age									

	Certainty assessment Study design Risk of bias Inconsistenc y Indirectness Imprecision randomized trials serious ^a serious ^r serious ⁱ very serious ^a						Nº of	patients	Effe	ect		Importon
Nº of trials		Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importan ce
1		seriousª	serious ^r	serious ⁱ	very serious ^h	none	67	67	-	SMD 0.02 SD lower (0.36 lower to 0.32 higher)	Uery low	

General functional status - General functional status at 6 months

1	randomized trials	very serious ^q	serious ^{ir}	serious ⁱ	very serious ^h	none	32	19	-	SMD 0 (0.57 lower to 0.57 higher)	⊕⊖⊖⊖ Very low		
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Population subgroups 1, 2, 3, 4 and 5 - not reported (no subgroup analysis performed)

General functional status - Functional status at 12 months - not reported

Psychological functioning - at 1 month

2	randomized trials	very serious ^t	Seriousi	Serious	very serious ^h	none			-	Data was not pooled, because they used different measurements	⊕⊖⊖⊖ Very low	
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Psychological functioning - at 3 months

1 ra	andomized ve trials	ery serious ^t	Seriousi	Serious ⁱ	very serious ^h	none			-	Data was not pooled, because they used different measurements	⊕○○○ Very low	
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Psychological functioning - at 6 months

			Certainty as	sessment			Nº of	patients	Ef	fect		Importon
Nº of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	WHO SMT	sham/placebo SMT	Relative (95% CI)	Absolute (95% Cl)	Certainty	Importan ce
1	randomize trials	ed very serious	s ^t serious ^j	serious ⁱ	very serious ^h	none			-	Data was not pooled, because they used different measurements	Very low	

Psychological functioning - at 12 months - not reported (subgroup analysis of psychological functioning not conducted as data could not be pooled)

CI: confidence interval; MD: mean difference; RR: risk ratio; SMD: standardised mean difference

Explanations

a. Downgrade due to the presence of performance bias (lack of patient blinding) in all trials. We did not downgrade for the other risk of bias domains because most of the weight (>50%) comes from trials with a low risk of bias.

b. Downgrade because I² > 75%, and treatment effects were in different directions, and were not able to be explained. Poor overlap of 95% CIs

c. We did not downgrade because trials were included from different countries, from different settings and populations.

d. Downgraded for the following: 1) sample <2000 participants; anTd 2) the lower 95% CI crosses the barrier of a potentially clinically-relevant threshold and the upper border is in favour of the control group.

e. Downgraded due to selection bias (unclear treatment allocation), performance bias (unclear risk due to co-interventions and compliance), and high risk of attrition bias.

f. Not downgraded due to treatment effect are similar, I2<50% and CIs overlap

g. Downgraded because all trials that provided data were small for this outcome; single-center trials and not from different settings or countries .

h. Downgraded because <2,000 participants were included.

i. Downgraded because just one (small) trial provided data for this outcome; single-center trial and therefore not from different settings or countries.

j. Downgrade because treatment effects were in different directions. Poor overlap of 95% Cls. I² > 50%

k. Downgrade due to attrition bias.

I. Downgraded although the I² < 50%, the treatment effects were in different directions.

m. Downgraded due to selection bias (unclear treatment allocation), and high risk of attrition bias.

n. Downgraded because of a high risk of performance bias (patients and clinicians were not blinded in a majority of the trials) and unclear risk of selection bias (e.g. treatment allocation).

o. Downgraded one level because there were <2,000 participants but more than 1000 and the 95% CI was relatively broad (including a strong, clinically-relevant effect and no effect).

p. Not downgraded due to treatment effect are similar, I2<75% and CIs overlap

q. Downgraded due to selection bias (unclear treatment allocation), performance bias (unclear risk of blinding patients and clinicians), and high risk of attrition bias and selective outcome reporting bias.

r. Downgraded because data comes one trial, small in size.

s. Downgraded one level as almost 1000 participants were included

t. Downgraded due to presence of performance bias and high risk of attrition bias.

<u>GRADE Table 2</u>. What are the benefits and harms of SMT in the management of community-dwelling adults (including older adults aged 60 years and over) with chronic primary low back pain (with or without leg pain) compared with <u>no intervention</u>?

			Certainty assess	sment			Nº of	patients	E	ffect		
№ of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other consideratio ns	SMT	no intervention	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Pain inter	isity (higher so	ores mean more	pain)									
Pain - Pai	n at 1 month											
4	randomized trials	seriousª	serious⁵	serious∘	very serious ^e	none	218	107	-	MD 14 lower (27.35 lower to 0.64 lower)	⊕○○○ Very low	
Populatio	n subgroups 1	, 2 and 3 - not rep	orted (no subgrou	up analysis perforr	med)							
Populatio	n subgroup 4:	regional economi	ic development -	High-income cou	untries							
3	randomized trials	serious ^a	serious⁵	serious ^c	very serious ^e	none	198	87	-	MD 8.8 lower (18.17 lower to 0.57 higher)	⊕⊖⊖⊖ Very low	
Populatio	n subgroup 4:	regional economi	ic development -	Low- or lower m	iddle-income In	come countries						
1	randomized trials	seriousª	serious ^j	serious∘	very serious ^e	none	20	20	-	MD 36 lower (43.9 lower to 28.1 higher)	⊕⊖⊖⊖ Very low	
Pain - Pai	n at 3 months									•		·
1	randomized trials	very serious ^f	serious ^j	serious°	very serious ^e	none	36	16	-	MD 14.2 lower (26.89 lower to 1.51 lower)	⊕⊖⊖⊖ Very low	
Populatio	n subgroups 1	, 2 and 3 - not rep	orted (no subgrou	up analysis perforr	ned)					<u>.</u>		
Populatio	n subgroup 4:	regional economi	ic development -	High-income cou	untries							
1	randomized trials	serious ^f	serious ^j	serious⁰	very serious ^e	none	36	16	-	MD 14.2 lower (26.89 lower to 1.51 lower)	⊕○○○ Very low	

			Certainty assess	ment			Nº of	patients	E	Effect		
Nº of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other consideratio ns	SMT	no intervention	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Populatio	on subgroup 4:	regional economi	ic development -	Low- or lower m	iddle-income In	come countries ·	not reporte	ed				
Pain - Pai	n at 6 months											
1	randomized trials	very serious ^f	seriousi	serious∘	very serious ^e	none	32	15	-	MD 4.9 lower (18.68 lower to 8.88 higher)	⊕⊖⊖⊖ Very low	
Populatio	on subgroups 1	, 2 and 3 - not rep	orted (no subgrou	up analysis perforr	ned)			•				
Populatio	on subgroup 4:	regional economi	ic development -	High-income cou	untries							
1	randomized trials	very serious ^f	serious ^j	serious ^c	very serious ^e	none	32	15	-	MD 4.9 higher (18.68 higher to 8.88 higher)	⊕⊖⊖⊖ Very low	
Populatio	on subgroup 4:	regional economi	ic development -	Low- or lower m	iddle-income In	come countries ·	not reporte	ed		•	•	
Pain - Pai	n at 12 months	- not reported										
Back-spe	cific functional	status (higher sc	ores mean more	disability)								
Back-spe	cific functional	status - back-spe	ecific functional s	status at 1 month	ı -							
4	randomized trials	serious ^a	not serious ^g	serious	very serious ^e	none	205	107	-	SMD 0.57 lower (0.82 lower to 0.32 lower)	⊕⊖⊖⊖ Very low	
Populatio	on subgroups 1	, 2, and 3 - not rej	oorted							!	1	
Populatio	on subgroup 4:	regional economi	ic development -	High-income cou	untries							
3	randomi zed trials	seriousª	not serious ^g	serious ^c	very serious ^e	none	185	87	-	SMD 0.6 SD lower (0.89 lower to 0.31 lower)	⊕⊖⊖⊖ Very low	

Population subgroup 4: regional economic development - Low- or lower middle-income countries

			Certainty assess	ment			Nº of	f patients		Effect		
№ of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other consideratio ns	SMT	no intervention	Relative (95% Cl)		Certainty	Importance
1	randon zed trials	ni serious ^a	serious ^j	serious∘	very seriouse	none	20	20	-	SMD 0.38 SD lower (1.01 lower to 0.24 higher)	⊕⊖⊖⊖ Very low	
Populatio	n subgroup	5: ODI										
2	randon zed trials	ni seriousª	not serious ^g	serious ^c	very serious ^e	none	34	48	-	SMD 0.36 SD lower (0.81 lower to 0.09 higher)	⊕⊖⊖⊖ Very low	
Populatio	n subgroup	5: RMDQ	•		•					ŀ		
2	rando mized trials	serious ^a	not serious ^g	serious ^c	very serious ^e	none	171	59	-	SMD 0.66 SD lower (1 lower to 0.33 lower)	⊕○○○ Very low	
Back-spe	cific functio	ial status - back-sp	ecific functional s	status at 3 month	IS	1 1	1	I			I	
1	rando mized trials	very serious ^f	seriousi	serious°	very seriouse	none	36	17	-	SMD 0.03 higher (0.54 lower to 0.61 higher)	⊕⊖⊖⊖ Very low	
Populatio	n subgroup	1, 2 and 3 - not rep	orted (no subgrou	up analysis perfor	ned)	ļļ_	Į			-!!-		
Populatio	n subgroup	4: regional econom	ic development -	High-income co	untries							
1	randomized trials	d very serious ^f	seriouse	seriouse	very serious ^e	none	36	17	-	SMD 0.03 higher (0.54 lower to 0.61 higher)	⊕⊖⊖⊖ Very low	
Back-spe	cific function	nal status - back-sp	ecific functional s	status at 6 month	is i		:			•		
1	randomize trials	d very serious ^f	seriouse	seriouse	very serious ^e	none	32	15	-	SMD 0.18 lower (0.8 lower to 0.43 higher)	⊕⊖⊖⊂ Very low	

			Certainty assess	ment			Nº of	patients		Effect		
№ of trials	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other consideratio ns	SMT	no intervention	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Populatio	n subgroups 1	2 and 3 - not rep	orted (no subgrou	ıp analysis perfori	med)							
Populatio	n subgroup 4:	regional economi	ic development -	High-income co	untries							
1	randomized trials	serious ^f	seriouse	seriouse	very serious ^e	none	32	15	-	SMD 0.18 lower (0.8 lower to 0.43 higher)	⊕⊖⊖⊖ Very low	

Back-specific functional status - back-specific functional status at 12 months - not reported

Health-related quality of life (higher scores mean better health)

Health-related quality of life - Health-related quality of life at 1 month

1	rando mized trials	serious ⁱ	serious®	serious ^e	very serious ^e	none	129	42	-	MD 4.95 higher (3.2 higher to 6.71 higher)	⊕⊖⊖ ⊖ Very low	
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Health-related quality of life - Health-related quality of life at 3 months, 6 months or 12 months - not reported

General functional status (higher scores mean less disability)

General functional status - functional status at 1 month

1 randomiz ed trials very serious ^f serious ^{ic} very serious ^e none 42 17 - MD 5.5 higher (1.99 lower to 12.99 higher) ⊕ ○
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General functional status - functional status at 3 months

1	randomiz ed trials	very serious ^f	serious	serious⁰	very serious ^e	none	36	17	-	MD 10.4 higher (2.79 higher to 18.01 higher)	⊕⊖⊖⊖ Very low	
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General functional status - functional status at 6 months

			Certainty asses	sment			Nº of	patients	Ef	fect		
Nº o trial	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other consideratio ns	SMT	no intervention	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
1	randomized trials	very serious ^f	seriouse	seriouse	very serious ^e	none	32	15	-	MD 8.5 higher (0.12 higher to 16.88 higher)	⊕⊖⊖⊖ Very low	

General functional status - Functional status at 12 months - not reported

Psychological functioning - at 1 month

used different measurements

Psychological functioning - at 3 months

1	randomized trials	very serious ^f	Seriousi	Serious ^c	very serious ^e	none			-	Data was not pooled, because they used different measurements	⊕⊖⊖⊖ Very low	
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Psychological functioning - at 6 months

Psychological functioning - at 12 months - not reported

Subgroups for psychological functioning were not conducted as data could not be pooled

CI: confidence interval; MD: mean difference; SMD: standardised mean difference

Explanations

a. Downgraded due to the presence of performance bias (lack of patient blinding) in all trials. We did not downgrade for the other risk of bias domains because most of the weight (>50%) comes from trials with a low risk of bias.

- b. Downgraded due to the presence of statistical heterogeneity (I2 = 68%) which could not be explained by subgroup analysis. In addition, the treatment effects and corresponding 95% CI varied in direction.
- c. Downgraded because data comes from only single-centre trials and data does not come from different settings or countries.
- d. Downgraded because the upper 95% CI crosses the barrier of a potentially clinically-relevant threshold and the lower border is close to no effect.
- e. Downgraded because less than 2000 participants provided data for this outcome.
- f. Downgraded due to the presence of high risk of performance bias (lack of patient blinding), attrition bias and selective reporting.
- g. Not downgraded because the I² < 50%, and there was sufficient overlap of the 95% CI's.
- h. Downgraded because relatively few participants were recruited.
- i. Downgraded due to the presence of performance bias (lack of patient blinding).
- j. Downgraded because data comes from one trial small in size.

<u>GRADE Table 3</u>. What are the benefits and harms of SMT in the management of community-dwelling adults (including older adults aged 60 years and over) with chronic primary low back pain (with or without leg pain) compared with <u>usual care</u>?

One trial: data could not be extracted for GRADE assessment.

<u>GRADE Table 4</u>. What are the benefits and harms of SMT as an <u>adjuvant therapy</u> in the management of community-dwelling adults (including older adults aged 60 years and over) with chronic primary low back pain (with or without leg pain)?

			Certainty assessme	ent			Nº of pat	ients	E	ffect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance

Pain intensity (higher scores mean more pain)

Pain - Pain at 1 month

10 randomized trials serious ^a serious ^b	not serious ^c not serious ^d	none 650	864 -	MD 5.16 lower (9.32 lower to 1 lower)	⊕⊕⊖ ⊖ Low
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Population subgroups 1, 2 and 3 - not reported (no subgroup analysis performed)

Population subgroup 4: regional economic development - high-income countries

6	randomized trials	seriousª	serious ^b	not serious⁰	not serious ^d	none	479	691	-	MD 3.13 lower (7.73 higher to 1.48	⊕⊕⊖ ⊖ Low	
										higher)		

Population subgroup 4: regional economic development low- or lower middle-income income countries

4	randomized trials	seriousª	not serious ^e	serious ^f	very serious ^g	none	171	173	-	MD 9.05 lower (14.71	⊕OO ○	
										lower to 3.39 lower)	Very low	

Population subgroup 5: participants over 60 years of age

1	randomized trials	seriousª	serious ⁿ	serious ^h	very serious ^g	none	87	79	-	MD 2.9 lower (8.85 lower to 3.05 higher)	⊕⊖⊖ ⊖ Very low	
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Pain - Pain at 3 months

design Risk bia zed trials serior s 1 and 2 - not rep 3: presence of rac zed trials serior	s not serious ^e orted (no subgroup analy:	Indirectness not serious ^c sis performed)	Imprecision not serious ^d	Other consideration s none	SMT with an intervention	Same interventio n alone 658	Relative (95% CI)	Absolute (95% CI) MD 4.34 lower (8.83 lower to 0.15	Certainty	Importance
s 1 and 2 - not rep 3: presence of rac	orted (no subgroup analy dicular pain		not serious ^d	none	739	658	-	lower (8.83 lower	\bigcirc	
3: presence of rad	dicular pain	sis performed)						higher)	-	
-										
zed trials serio										
		serious ^h	very serious ^g	none	96	96	-	MD 9 lower (24.42 lower to 6.42 higher)	⊕⊖⊖ ⊖ Very low	
4: regional econo	mic development - high-	income countrie	es							
zed trials serior	usª not seriousª	not serious ^c	not serious ^d	none	722	640	-	MD 6.4 lower (9.053 lower to 3.76 higher)	⊕⊕⊕ ⊖ Moderate	
4: regional econo	mic development - low-	or lower middle-	income income	e countries						
zed trials serio	us ^a serious ⁱ	serious ^f	very serious ^g	none	171	173	-	MD 1.20 lower (1.32 lower to 3.72 higher)	⊕⊖⊖ ⊖ Very low	
4 ze	ed trials serior	ed trials serious ^a not serious ^e	ed trials serious ^a not serious ^e not serious ^c I: regional economic development - low- or lower middle - ed trials serious ^a serious ⁱ serious ^f	I: regional economic development - low- or lower middle-income income ed trials serious ^a serious ⁱ serious ^f very serious ^g	ed trials serious ^a not serious ^c not serious ^c not serious ^d none I: regional economic development - low- or lower middle-income income countries ed trials serious ^a serious ⁱ serious ^f very serious ^g none	ed trials serious ^a not serious ^c not serious ^c not serious ^d none 722 I: regional economic development - low- or lower middle-income income countries ed trials serious ^a serious ⁱ serious ^f very serious ^g none 171	ed trials serious ^a not serious ^c not serious ^d none 722 640 I: regional economic development - low- or lower middle-income income countries ed trials serious ^a serious ⁱ serious ^f very serious ^g none 171 173	ed trials serious ^a not serious ^c not serious ^d none 722 640 - I: regional economic development - low- or lower middle-income income countries ed trials serious ^a serious ⁱ serious ^f very serious ^g none 171 173 -	Image: serious and series and series and series and series and series and series an	L: regional economic development - high-income countries ed trials serious ^a not serious ^c not serious ^d none 722 640 - MD 6.4 Ower (9.053) Ower (9.053) Noderate et trials serious development - low- or lower middle-income income countries none 722 640 - MD 6.4 Ower (9.053) Moderate et trials serious ^a not serious ^c not serious ^c none 722 640 - MD 6.4 Ower (9.053) Moderate et tregional economic development - low- or lower middle-income income countries - MD 1.20 O

			Certainty assessme	nt			Nº of pat	ents	Ef	fect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
1	randomized trials	seriousª	serious ⁿ	serious ^h	very serious ^g	none	80	76	-	MD 7.9 lower (13.89 lower to 1.91 lower)	⊕⊖⊖ ⊖ Very low	

Pain - Pain at 6 months

3	randomized trials	seriousª	serious ^b	not serious¢	very serious ^j	none	206	204	-	MD 4.22 lower (15.12 lower to 6.67 higher)	⊕⊖⊖ ⊖ Very low	
-	subgroups 1, 2 and subgroup 4: regiona	· · ·		,								
1	randomized trials	seriousª	serious ⁿ	serious ^h	very serious ^g	none	79	77	- (MD 1.2 higher (4.82 lower to 7.22 higher)	⊕⊖⊖ ⊖ Very low	

Population subgroup 4: regional economic development - low- or lower middle-income income countries

2	randomized trials	seriousª	serious ⁱ	serious ^f	very serious ^g	none	127	127	-	MD 10.8 lower (13.2 lower to 8.4 lower)	⊕⊖⊖ ⊖ Very low	
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Population subgroup 5: participants 60 years and older

			Certainty assessme	ent			Nº of pat	ients	E	fect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
1	randomized trials	seriousª	serious ⁿ	serious ^r	very serious ^g	none	79	77	-	MD 1.2 higher (4.82 lower to 7.22 higher)	⊕⊖⊖ ⊖ Very low	
Pain - Pain a	at 12 months											
5	randomized trials	seriousª	not serious °	not serious ^c	not serious ^d	none	823	745	-	MD 3.92 higher (8.53 lower to 0.69 higher)	⊕⊕⊕ ⊖ Moderate	
Population	subgroups 1 and 2 -	not reported	l (no subgroup analys	sis performed)		I		1			<u> </u>	1
Population	subgroup 3: presen	ce of radicula	ar pain									
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^g	none	96	96	-	MD 4 lower (21.45 lower to 13.45 higher)	⊕⊖⊖ ⊖ Very low	
Population	subgroup 4: regiona	l economic o	development - high-i	income countrie	S							
4	randomized trials	seriousª	not serious ^k	not serious ^c	not serious ^d	none	713	635	-	MD 2.42 lower (5.19 lower to 0.35 higher)	⊕⊕⊕ ⊖ Moderate	

Population subgroup 4: regional economic development - low- or lower middle-income income countries

			Certainty assessme	nt			Nº of pati	ents	Ef	ffect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
1	randomized trials	seriousª	serious ^b	serious ^h	very serious ^g	none	110	110	-	MD 10.4 lower (13.01 lower to 7.79 lower)	⊕⊖⊖ ⊖ Very low	

Population subgroup 5: participants 60 years and older

1	randomized trials	serious ^a	Serious ⁿ	serious ^h	very serious ^g	none	80	76	-	MD 1.30 lower (4.69 lower to 7.29 higher)	⊕⊖⊖⊖ Very low	
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Back-specific functional status - back-specific functional status at 1 month (higher score mean more disability)

7	randomized trials	seriousª	serious ^b	not serious ^c	serious ⁱ	none	573	792	-	SMD 0.38 lower (0.73 lower to 0.04 lower)	⊕⊖⊖ ⊖ Very low	
-	subgroups 1, 2 and subgroup 4: regiona	· · ·		,	s							
5	randomized trials	seriousª	serious ^b	not serious ^c	serious ⁱ	none	446	663	-	SMD 0.14 SD lower (0.36 lower to 0.09 higher)	⊕⊖⊖ ⊖ Very low	
Population	subgroup 4: regiona	I economic o	development - low- o	or lower middle-	income income	e countries						

			Certainty assessme	nt			Nº of pat	ients	E	ffect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
2	randomized trials	seriousª	serious ^k	serious ^f	very serious ^g	none	127	129	-	SMD 1.05 SD lower (1.39 lower to 0.71 lower)	⊕⊖⊖ ⊖ Very low	
Population	subgroup 5: particip	ants 60 year	s and older							-		
1	randomized trials	seriousª	serious ⁿ	serious ^h	very serious ^g	none	81	79	-	SMD 0.08 SD higher (0.23 lower to 0.39 higher)	⊕⊖⊖ ⊖ Very low	
Population s	subgroup 6: ODI											
3	randomized trials	seriousª	serious ^b	serious ^f	very serious ^g	none	75	80	-	SMD 0.73 SD lower (1.48 lower to 0.02 higher)	⊕⊖⊖ ⊖ Very low	
Population	subgroup 6: RMDQ	!	<u></u>	<u>I</u>	!	<u></u>	<u> </u>		<u> </u>	<u>I</u>	<u> </u>	<u> </u>
6	randomized trials	seriousª	serious ^b	not serious ^c	serious ⁱ	none	523	742	-	SMD 0.4 SD lower (0.8 lower to 0.01 lower)	⊕⊖⊖ ⊖ Very low	
Back-specif	ic functional status	- back-speci	fic functional status	at 3 months								·I
5	randomized trials	seriousª	not serious ^k	not serious ^c	serious ⁱ	none	763	696	-	SMD 0.13 lower (0.29 lower to 0.03 higher)	⊕⊕⊖ ⊖ Low	

Population subgroups 1 and 2 - not reported (no subgroup analysis performed)

			Certainty assessme	nt			Nº of pati	ents	Ef	fect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Population s	subgroup 3: presend	ce of radicula	ar pain									
1	randomized trials	serious ^a	serious ^h	serious ^h	very serious ^g	none	96	96	-	SMD 0.19 SD lower (0.47 lower to 0.1 higher)	⊕⊖⊖ ⊖ Very low	
Population s	subgroup 4: regiona	l economic d	levelopment - high-	income countrie	S							
4	randomized trials	serious ^a	not serious∘	not serious ^c	serious ⁱ	none	746	687	-	SMD 0.14 SD lower (0.31 lower to 0.03 higher)	⊕⊕⊖ ⊖ Low	
Population s	subgroup 4: regiona	l economic c	levelopment - low- o	or lower middle-	income income	e countries						
1	randomized trials	seriousª	Serious ⁿ	serious ^f	very serious ^g	none	17	18	-	SMD 0.11 SD higher (0.55 lower to 0.77 higher)	⊕⊖⊖ ⊖ Very low	

Population subgroup 5: participants 60 years and older

1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^g	none	80	76	-	SMD 0.01 SD lower (0.32 lower to 0.31 higher)	⊕⊖⊖ ⊖ Very low	
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Population subgroup 6: RMDQ

5	randomized trials	seriousª	serious ^k	not serious ^c	serious ⁱ	none	763	696	-	SMD 0.13 SD lower	⊕00	
										(0.29 lower to 0.03 higher)	O Very low	

			Certainty assessme	ent			№ of pat	ients	E	ffect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Back-speci	fic functional status	(higher scor	es mean more disat	oility)								
Back-speci	fic functional status	- back-speci	fic functional status	at 6 months								
3	randomized trials	seriousª	serious ^b	not serious ^c	very serious ⁱ	none	206	204	-	SMD 0.4 lower (0.91 lower to 0.11 higher)	⊕⊖⊖ ⊖ Very low	
Population	subgroups 1, 2 and	3 - not repor	ted (no subgroup ana	alysis performed)	<u>!</u>			!	!	<u>-</u>	<u>!</u>	1
Population	subgroup 4: regiona	al economic o	development - high-	income countrie	s							
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^g	none	79	77	-	SMD 0.28 SD lower (0.6 lower to 0.04 higher)	⊕⊖⊖ ⊖ Very low	
Population	subgroup 4: regiona	al economic o	development - low-	or lower middle-	income incom	e countries	<u></u>	!		<u></u>	<u>I</u>	
2	randomized trials	seriousª	serious ^b	serious ^r	very serious ^g	none	127	127	-	SMD 0.43 SD lower (1.34 lower to 0.49 higher)	⊕⊖⊖ ⊖ Very low	
Population	subgroup 5: particip	oants 60 year	s and older					:				:
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very	none	79	77	-	SMD 0.28	$\oplus \bigcirc \bigcirc$	

1	randomized trials	serious ^a	Serious ⁿ	serious ^h	very serious ^g	none	79	77	-	SMD 0.28 SD lower	$\oplus OO$	
					36110039					(0.6 lower	0	
										to 0.04 lower)	Very low	

Population subgroup 6: ODI

			Certainty assessme	ent			№ of pat	ients	E	ffect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^g	none	17	17	-	SMD 0.05 SD higher (0.62 lower to 0.73 higher)	⊕⊖⊖ ⊖ Very low	
Population	subgroup 6: RMDQ											-
3	randomized trials	seriousª	serious ^b	not serious○	very serious ^g	none	206	204	-	SMD 0.4 SD lower (0.91 lower to 0.11 higher)	⊕⊖⊖ ⊖ Very low	
Back-speci	ific functional status	- back-speci	fic functional status	at 12 months								
4	randomized trials	seriousª	not serious ^e	not serious ^c	serious ⁱ	none	816	746	-	SMD 0.23 lower (0.43 lower to 0.03 lower)	⊕⊕⊖ ⊖ Low	
Population	subgroups 1 and 2 -	not reported	(no subgroup analys	sis performed)		<u></u>		1	I	<u></u>		<u> </u>
Population	subgroup 3: presend	ce of radicula	ar pain									
1	randomized trials	seriousª	Serious ⁿ	serious ^f	very serious ^g	none	96	96	-	SMD 0.1 SD lower (0.38 lower to 0.19 higher)	⊕⊖⊖ ⊖ Very low	
Population	subgroup 4: regiona	I economic d	development - high-	income countrie	; ;;;	<u>.</u>						<u>.</u>
3	randomized trials	seriousª	not serious ^k	not serious ^c	serious ⁱ	none	706	636	-	SMD 0.16 SD lower (0.27 lower to 0.05 lower)	⊕⊕⊖ ⊖ Low	

			Certainty assessme	ent			Nº of pat	ients	E	ffect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Population :	subgroup 4: regiona	l economic o	development - low-	or lower middle-	income income	e countries						
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^g	none	110	110	-	SMD 0.67 SD lower (0.94 lower to 0.4 lower)	⊕⊖⊖ ⊖ Very low	
Population	subgroup 5: particip	ants 60 year	s and older									
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^g	none	80	76	-	SMD 0.08 SD higher (0.23 lower to 0.4 higher)	⊕⊖⊖ ⊖ Very low	
Population :	subgroup 6: RMDQ											
4	randomized trials	seriousª	serious ^b	not serious ^c	serious ⁱ	none	816	746	-	SMD 0.23 SD lower (0.43 lower to 0.03 lower)	⊕⊖⊖ ⊖ Very low	
Health-relate	ed quality of life - He	alth-related	quality of life at 1 m	nonth (higher sc	ores mean bett	er health)		I				1
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^h	none	81	79	-	MD 0.6 SD higher (1.25 lower to 2.45 higher)	⊕⊖⊖ ⊖ Very low	
Population :	subgroups 1, 2 and 3	3 - not repor	ted (no subgroup and	alysis performed)		<u> </u>		!	I			
Population	subgroup 4: regiona	l economic o	development - not r	eported (No subo	group analysis p	erformed; only one	e trial)					
Population	subgroup 5: particip	ants 60 year	s and older									

		I	Certainty assessme	nt			Nº of pati	ents	E	ffect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
1	randomized trials	seriousª	serious ⁿ	serious ^h	very serious ^g	none	81	79	-	MD 0.6 higher (1.25 lower to 2.45 higher)	⊕⊖⊖ ⊖ Very low	
Health-relate	ed quality of life (hig	her scores n	nean better health)		-			-		-		
Health-relate	ed quality of life - He	alth-related	quality of life at 3 m	onths								
3	randomized trials	serious ^a	not serious ^k	not serious≎	very serious ⁱ	none	435	399	-	MD 1.78 SD higher (0.19 higher to 3.36 higher)	⊕⊖⊖ ⊖ Very low	
Population s	subgroups 1 and 2 -	not reported	l (no subgroup analys	is performed)								
Population s	subgroup 3: presend	ce of radicula	ar pain									
1	randomized trials	seriousª	serious ⁿ	serious ^h	very serious ^g	none	96	96	-	MD 3.4 higher (3.2 lower to 10 higher)	⊕⊖⊖ ⊖ Very low	
Population s	subgroup 4: regiona	l economic d	levelopment - not re	ported								
Population s	subgroup 5: particip	ants 60 year	s and older									
1	randomized trials	seriousª	serious	serious ^h	very serious ^g	none	80	76	-	MD 0.5 higher (1.38 lower to 2.38 higher)	⊕⊖⊖(Very low	
Health-relate	ed quality of life - He	ealth-related	quality of life at 6 m	onths								-

	Certainty assessment								E	ffect		
№ of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^h	none	79	77	-	SMD 0.3 SD lower (2.21 lower to 1.61 higher)	⊕⊖⊖⊂ Very low	
Population	subgroups 1, 2, 3 an	d 4 - not rep	orted (no subgroup a	analysis performe	d)			-		-	-	·
Population	subgroup 5: particip	ants 60 year	s and older									
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^g	none	79	77	-	MD 0.3 lower (2.21 lower to 1.61 higher)	⊕⊖⊖ Very low	
Health-relat	ed quality of life - He	ealth-related	quality of life at 12 r	nonths								
4	randomized trials	seriousª	serious ^b	not serious ^c	serious ⁱ	none	428	393	-	MD 0.31 higher (2.29 lower to 2.91 higher)	⊕⊖⊖ Very low	
Population	subgroups 1 and 2 -	not reported	l (no subgroup analys	sis performed)	•	*		•		•		·
Population	subgroup 3: presend	ce of radicula	ar pain									
1	randomized trials	seriousª	Seriousn	serious ^h	very serious ^g	none	96	96	-	MD 1.5 higher (4.96 lower to 7.96 higher)	⊕⊖⊖ ⊖ Very low	

Population subgroup 4: regional economic development – not reported (No subgroup analysis performed; only one trial)

Population subgroup 5: participants 60 years and older

			Certainty assessme	ent	№ of patients		Effect					
Nº of trials	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration s	SMT with an intervention	Same interventio n alone	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
1	randomized trials	seriousª	Serious	serious ^h	very serious ^g	none	80	76	-	MD 1.5 lower (3.38 lower to 0.38 higher)	⊕⊖⊖ ⊖ Very low	
Psychologi	ical functioning - Psy	chological fu	unctioning at 1 mon	th	•			•				
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very serious ^g	none	81	79	-	MD 0.4 SD higher (1.38 lower to 2.18 higher)	⊕⊖⊖ ⊖ Very low	
Psychologi	ical functioning - Psy	chological fu	unctioning at 3 mon	ths	•			•				
3	randomized trials	seriousª	not serious ^k	not serious ^c	very serious ^g	none	435	399	-	MD 1.33 SD higher (0.91 lower to 3.58 higher)	⊕⊖⊖ ⊖ Very low	
Psychologi	ical functioning - Psy	chological fu	unctioning at 6 mon	ths						1	1	1
1	randomized trials	seriousª	Serious ⁿ	serious ^h	very	none	79	77	-	MD 1.7 SD	⊕00	

	1	randomized trials	serious ^a	Serious ⁿ	serious ^h	very	none	79	77	-	MD 1.7 SD	$\oplus \bigcirc \bigcirc$	
						serioush					higher (0.18 lower	\bigcirc	
											to 3.58 higher)	Very low	
L											U ,		

Psychological functioning - Psychological functioning at 12 months

3	randomized trials	seriousª	serious ^b	not serious ^c	very serious ^g	none	428	393	-	MD 0.42 SD higher (1.42 lower to 2.27 higher)	⊕⊖⊖ ⊖ Very low	
Subgroup analysis of psychological functioning not conducted.												

CI: confidence interval; MD: mean difference; SMD: standardised mean difference

Explanations

a. Downgrade due to the presence of performance bias (lack of patient blinding) in all trials. We did not downgrade for the other risk of bias domains because most of the weight (>50%) comes from trials with a low risk of bias.

b. Downgraded suggesting substantial statistical heterogeneity (I2 >50%). In addition, the treatment effects and corresponding 95% CI varied in direction and could not be explained.

c. We did not downgrade because trials were included from different countries, from different settings and populations.

d. Not downgraded. The 95% CI's are sufficiently narrow and do not across the line of no effect nor the clinically-relevant threshold.

e. Not downgraded because although the I² is high, all treatment effects were in the same direction, except one small trial, and there was sufficient overlap of the 95% Cl's.

f. Downgraded because only single centered (small) trials and data does not come from different settings or countries.

g. Downgraded because < 2000 participants, very few participants were recruited.

h. Downgraded because just one (small) trial provided data for this outcome, therefore data does not come from different settings or countries...

i. Downgraded for the following: the lower 95% CI crosses the barrier of a potentially clinically-relevant threshold, and the upper border is close to no effect.

j. Downgraded for the following: 1) 410 participants; and 2) the lower 95% CI crosses the barrier of a potentially clinically-relevant threshold and the upper border is in favour of the control group.

k. Not downgraded because the I² < 50%, and there was sufficient overlap of the 95% CI's.

I. Downgraded because the upper 95% CI crosses the barrier of a potentially clinically-relevant threshold, and the lower border is close to no effect.

m. Downgraded because data is provided from almost 1000 participants.

n. Downgraded because data comes from one trial, small in size.