E.2 Multicomponent biopsychosocial care

Overview of the PICO structure

Definition of the intervention

Multicomponent biopsychosocial care involves delivery of at least two of the three components of care from the biopsychosocial model: physical, psychological or social, delivered by a single provider or a multidisciplinary team. These components align with the biopsychosocial model of chronic pain and its applicability to older people. Multicomponent biopsychosocial care adopts a rehabilitation approach that aims to optimize function and reduce disability in individuals with health conditions in interaction with their environment. For the purpose of the guideline, trials of all types of interventions for multicomponent biopsychosocial care were included where they satisfied the criterion of a multicomponent intervention that targets *functioning* (body structures and functions, activities and participation). The intervention should target at least two domains of the biopsychosocial model: either the biological component targeting physical aspects of functioning such as body structures or functions (e.g. an exercise programme targeting an increase in muscle strength), psychological component (e.g. addressing involvement in meaningful life roles including work).

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/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 comparators, or where the effect of the intervention can be isolated c) Usual care (described as usual care in the trial) including care where the intervention can be isolated 							
Outcomes	Critical outcomes constructs (all adults) Critical outcomes constructs (older adults, aged ≥ 60 years) • Pain Back-specific function/disability • Back-specific function/disability General function/disability • Health-related quality of life Psychosocial function • Social participation Social participation • Self-efficacy Adverse events (as reported in trials) Pain • Back-specific function/disability General function/disability • General function/disability General function/disability • General function/disability General function/disability • General function Adverse events (as reported in trials) • Adverse events (as reported in trials) Critical outcom • Adverse events (as reported in trials) Critical outcom • Adverse events (as reported in trials) Change in the use of medications • Falls 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 based on experience of GDG members	No evidence identified				

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

Multicomponent biopsychosocial care (single provider)

Domain	All adults	Older people
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Benefits	Small; uncertain	Small; uncertain			
Harms	Uncertain	Uncertain			
Balance benefits to harms	Probably favours single-provider multicomponent biopsychosocial care (single provider); uncertain	Probably favours single-provider multicomponent biopsychosocial care (single provider); uncertain			
Overall certainty	Very low	Very low			
Values and preferences	Important uncertainty; possibly important uncertainty or variability; probably no important uncertainty	Important uncertainty; possibly important uncertainty or variability; probably no important uncertainty			
Resource considerations	Large costs; moderate costs; varies	Large costs; moderate costs; varies			
Equity and human rights	Increased; probably increased; probably reduced; reduced; varies	Increased; probably increased; probably reduced; reduced; varies			
Acceptability	Yes; probably yes; varies	Yes; probably yes; varies			
Feasibility	Yes; probably yes; probably no; varies	Yes; probably yes; probably no; varies			

Multicomponent biopsychosocial care (MDT provider)

Benefits	Moderate; small; uncertain	Small; uncertain				
Harms	Uncertain	Uncertain				
Balance benefits to harms	Probably favours multicomponent biopsychosocial care (MDT provider); uncertain	Probably favours multicomponent biopsychosocial care (MDT provider); uncertain				
Overall certainty	Low; very low	Low; very low				
Values and preferences	Important uncertainty; possibly important uncertainty or variability; probably no important uncertainty	Important uncertainty; possibly important uncertainty or variability; probably no important uncertainty				
Resource considerations	Large costs; moderate costs; varies	Large costs; moderate costs; varies				

Equity and human rights	Increased; probably increased; probably reduced; reduced; varies	; Increased, probably increased; probably reduced; reduced; varies			
Acceptability	Yes; probably yes; varies	Yes; probably yes; varies			
Feasibility	Yes; probably yes; probably no; varies	Yes; probably yes; probably no; varies			

<u>GRADE Table 1</u>. What are the benefits and harms of multicomponent biopsychosocial care 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 to <u>placebo</u>?

No trials

<u>GRADE Table 2</u>. What are the benefits and harms of multicomponent biopsychosocial care delivered by a multidisciplinary team 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 to <u>no intervention</u>?

Certainty assessment				Ng	of patients	Effect						
Nº of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	MB R	No intervention	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Pain - sh	ort term											
3ª	randomized trials	very serious ^b	Not serious⁰	not serious	serious ^d	none	106	107	-	SMD 0.73 SD lower (1.22 lower to 0.24 lower)	⊕⊖⊖ ⊖ Very low	
Populatio	on subgroups 1	l, 2, 3 and 4 -	not reported (no sub	group analysis wa	as performed)							
Pain - inte	ermediate term	or long term	 no studies identif 	ied that reported	on this outcome							
-	-	-	-	-	-	-	-	-	-	-	-	
Back-spe	cific functiona	l status – sho	rt term									
3ª	randomized trials	very serious ^b	not serious	not serious	seriouse	none	106	107	-	SMD 0.49 SD lower (0.76 lower to 0.22 lower)	⊕⊖⊖ ⊖ Very low	
Populatio	on subgroups 1	l, 2, 3 and 4 -	not reported (no sub	group analysis wa	as performed)	:						
Back-spe	cific functiona	l status - inter	rmediate term or lor	ıg term: no studio	es were identified that reporte	d on this outcome						
-	-	-	-	-	-	-	-	-	-	-	-	
General f	unctional statu	ıs - short term	n, intermediate term	or long term: no	studies were identified that re	eported on this out	come					
-	-	-	-	-	-	-	-	-	-	-	-	
Health-re	lated quality of	f life - short te	rm, intermediate ter	m or long term: I	no studies were identified that	t reported on this o	utcome					

			Certain	ity assessment			Ng	of patients	Ef	fect		
Nº of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	MB R	No intervention	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
-	-	-	-	-	-	-	-	-	-	-	-	
Adverse	events or serio	us adverse e	vents: no studies we	ere identified that	t reported on this outcome				1		1	
-	-	-	-	-	-	-	-	-	-	-	-	
Psycholo	ogical functioni	ng (depressio	on) - short term (low	er score means l	ess depression)							
3ª	randomized trials	very serious ^b	not serious	not serious	serious ^f	none	106	107	-	SMD 0.21 SD lower (0.59 lower to 0.18 higher)	⊕⊖⊖ ⊖ Very low	
Populatio	on subgroups 1	, 2, 3 and 4 -	not reported (no sub	group analysis wa	as performed)							
Psycholo	gical functioni	ng - intermed	liate term or long ter	m: no studies we	ere identified that reported on	this outcome						
-	-	-	-	-	-	-	-	-	-	-	-	
Social pa	rticipation - sh	ort term, inter	rmediate term or lor	ng term: no studi	es were identified that reporte	d on this outcome			1			
-	-	-	-	-	-	-	-	-	-	-	-	
Self-effic	acy - short tern	n, intermediat	te term or long term	: no studies were	e identified that reported on th	is outcome						
-	-	-	-	-	-	-	-	-	-	-	-	

CI: confidence interval; SMD: standardized mean difference

Explanations

a. Jäckel 1990, Smeets 2006, Turner 1990

b. Risk of bias downgraded by 2 levels for unclear or serious risk of bias in all studies for random sequence generation, allocation concealment, blinding of participants, clinicians, and outcome assessors, incomplete outcome data, selective reporting, compliance, and co-interventions.

c. Despite some heterogeneity (I-sq = 64%), not downgraded for inconsistency because direction of effect was same from all studies.

d. Imprecision downgraded by 1 level for wide confidence intervals that encompass a potential benefit and little to no effect. We re-expressed the SMD as mean difference on a 0 to 100 pain scale using an SD of 22.6 (i.e. control group SD from Smeets 2006) which gave MD -16.5 (-27.6 to -5.4). The minimal important difference on the 0 to 100 pain scale is approximately 15.

e. Imprecision downgraded by 1 level for wide confidence intervals that encompass a potential benefit and little to no effect. We re-expressed the SMD as mean difference on a 0 to 24 RDQ scale using an SD of 4.78 (i.e. control group SD from Smeets 2006) which gave MD -2.3 (-3.6 to -1.1). The minimal important difference on the 0 to 24 RDQ pain scale is approximately 10%.

f. Imprecision downgraded by 1 level for small sample size.

<u>GRADE Table 3</u>. What are the benefits and harms of multicomponent biopsychosocial care delivered by a single provider 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 to <u>usual care</u>?

			Certainty a	ssessment			№ of pat	tients		Effect		
Nº of studies	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	Rehabilitation	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Pain - sh	ort term – no st	udies ident	ified that reporte	ed on this outcor	ne							
-	-	-	-	-	-	-	-	-	-	-	-	
Pain - int	ermediate term	– no studie	es identified that	reported on this	outcome							
-	-	-	-	-	-	-	-	-	-	-	-	
Pain - Ior	ng term (two-poi	nt reduction	of pain intensity f	rom 11-point scal	e)		1	1	1	1		
1ª	randomized trials	very serious ^b	not serious⁰	not serious	serious ^d	none	29/60 (48.3%)	20/54 (37.0%)	RR 1.30 (0.84 to 2.02)	111 more per 1000 (from 59 fewer to 378 more)	⊕⊖⊖ ⊖ Very low	
Populatio	on subgroups 1	, 2, 3 and 4	- not reported (n	o subgroup analy	vsis was performe	ed; only one included s	tudy on this outcom	e)			•	
Back-spe	ecific functional	status – sł	ort term or inter	mediate term: n	o studies were i	dentified that reporte	d on this outcome					
-	-	-	-	-	-	-	-	-	-	-	-	
Back-spe	ecific functional	status - lor	ng term (30% im	provement)				1		1		
1a	randomized trials	very serious ^b	not serious ^c	not serious	serious ^d	none	34/60 (56.7%)	26/54 (48.1%)	RR 1.18 (0.83 to 1.68)	87 more per 1000 (from 82 fewer to 327 more)	⊕⊖⊖ ⊖ Very low	
Populatio	on subgroups 1	, 2, 3 and 4	- not reported (n	o subgroup analy	vsis was performe	ed; only one included s	tudy on this outcom	e)	•	•		
General f	functional statu	s – short te	rm, intermediate	term or long ter	rm: no studies v	vere identified that re	ported on this outo	come				
-	-	-	-	-	-	-	-	-	-	-	-	

			Certainty a	ssessment			Nº of pat	tients		Effect		
Nº of studies	Study design	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other considerations	Rehabilitation	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Health-re	lated quality of	life - short	term, intermedia	te term or long t	term: no studies	were identified that	reported on this ou	utcome				
-	-	-	-	-	-	-	-	-	-	-	-	
Adverse	events						1		-			
1ª	randomized trials	very serious ^b	not serious⁰	not serious	very serious ^e	none	0/60	0/54	RR not estimable	-	⊕⊖⊖ ⊖ Very low	
Populatio	on subgroups 1	, 2, 3 and 4	- not reported (n	o subgroup analy	vsis was performe	d; only one included s	tudy on this outcom	e)	:	:		
Serious a	adverse events:	no studies	were identified	that reported on	this outcome							
-	-	-	-	-	-	-	-	-	-	-	-	
Psycholo	ogical functionir	ng - short te	erm, intermediate	e term or long te	rm: no studies v	vere identified that re	eported on this out	come		1		
-	-	-	-	-	-	-	-	-	-	-	-	
Social pa	articipation - sho	ort term, int	ermediate term o	or long term: no	studies were id	entified that reported	I on this outcome	!	-	!	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Self-effic	acy - short term	, intermedi	ate term or long	term: no studies	s were identified	that reported on this	s outcome	ļ	· · ·			
-	-	-	-	-	-	-	-	-	-	-	-	

CI: confidence interval; RR: risk ratio

Explanations

a. van der Roer 2008

b. Risk of bias downgraded by 2 levels due to unclear or high risk of bias in blinding of participants, clinicians, and outcome assessors, selective reporting, compliance, and co-interventions.
c. Inconsistency not assessed, only one study included on this outcome
d. Imprecision downgraded by 1 level due to wide confidence intervals that encompass a potential benefit and no effect with intervention.

e. Imprecision downgraded by 2 levels due to no events reported.

<u>GRADE Table 4</u>. What are the benefits and harms of multicomponent biopsychosocial care delivered by a multidisciplinary team 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 to <u>usual care</u>?

			Certainty asses	sment			Nº of p	patients		Effect		
Nº of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Pain - short to	erm											
10ª	randomized	very	serious	not serious	seriousd	none	478	495	-	SMD 0.52 SD lower	⊕00	
	trials	serious ^b								(0.77 lower to 0.27 lower)	0	
											Very low	
Population su	ubgroup 1: gender	/sex	1					-	:	1	•	
Female only	randomized	very	not seriousº	not serious	serious ⁱ	none	44	47	-	SMD 0.61 SD lower	00	
1	trials	serious ^b								(1.03 lower to 0.19 lower)	\bigcirc	
											Very low	
Mixed 9	randomized	very	serious	not serious	serious ^{dl}	none	434	448	-	SMD 0.51 SD lower	$\oplus \bigcirc \bigcirc$	
9	trials	serious								(0.79 lower to 0.23 lower)	0	
											Very low	
Population su	ubgroup 2: race/et	hnicity - no	ot reported (no sub	group analysis	was performed; r	no study included marg	ginalized pop	oulations)	•	•	•	•
Population su	ubgroup 3: presen	ce of radic	ular leg pain									
Excluded leg	randomized	very	not seriousº	not serious	serious ⁱ	none	12	11	-	SMD 0.32 SD lower	$\oplus \bigcirc \bigcirc$	
pain 1	trials	serious⁵								(1.14 lower to 0.51 higher)	0	
											Very low	

			Certainty asses	sment			Nº of ∣	patients		Effect		
№ of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Mixed 9	randomized trials	very serious ^b	serious ^c	not serious	serious ⁱ	none	466	484	-	SMD 0.53 SD lower (0.8 lower to 0.27 lower)	⊕⊖⊖ ⊖ Very low	
Population su	ubgroup 4: region	al economi	c development				1	1	1	!		
Low/middle income 3	randomized trials	very serious ^b	not serious	not serious	serious ^p	none	148	155	-	SMD 0.46 SD lower (0.69 lower to 0.23 lower)	⊕⊖⊖ ⊖ Very low	
High income 7	randomized trials	very serious ^b	serious ^c	not serious	serious ^d	none	330	340	-	SMD 0.56 SD lower (0.92 lower to 0.19 lower)	⊕⊖⊖ ⊖ Very low	
Pain - interme	ediate term	1	1									
5°	randomized trials	very serious ^b	serious ^c	not serious	serious ^f	none	326	320	-	SMD 0.62 SD lower (0.93 lower to 0.31 lower)	⊕⊖⊖ ⊖ Very low	
Population su	ubgroups 1, 2 and	3 - not rep	orted (no subgroup	analysis was p	erformed)		1		!	1	1	
Population su	ubgroup 4: region	al economi	c development									
Low/middle income 1	randomized trials	very serious ^b	not serious⁰	not serious	serious ⁱ	none	92	96	-	SMD 0.49 SD lower (0.78 lower to 0.2 lower)	⊕⊖⊖ ⊖ Very low	
High income 4	randomized trials	very serious ^b	serious ^c	not serious	serious ⁱ	none	234	224	-	SMD 0.68 SD lower (1.12 lower to 0.25 lower)	⊕⊖⊖ ⊖ Very low	

			Certainty assess	sment			Nº of p	patients		Effect		
Nº of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
ain - long tern	n											
8 ^f	randomized trials	very serious ^b	not serious	not serious	not serious	none	517	446	-	SMD 0.25 SD lower (0.41 lower to 0.09 lower)	⊕⊕⊖ ⊖ Low	
opulation sub	ogroups 1 and 2 -	not report	ed (no subgroup ar	nalysis was perf	ormed)							
opulation sub	ogroup 3: presen	ce of radicu	ular leg pain									
Excluded leg pain 1	randomized trials	very serious ^b	not seriousº	not serious	Serious	none	12	11	-	SMD 0.28 SD lower (-1.1 lower to 0.54 higher)	⊕⊖⊖ ⊖ Very low	
Mixed 7	randomized trials	very serious ^b	not serious	not serious	not serious	none	505	435	-	SMD 0.25 SD lower (0.43 lower to 0.08 lower)	⊕⊕O ○	
											Low	
opulation sub	ogroup 4: regiona	al economic	c development									
Low/middle income 2	randomized trials	very serious ^b	not serious	not serious	serious ^ı	none	81	88	-	SMD 0.47 SD lower (0.77 lower to 0.16 lower)	⊕⊖⊖ ⊖ Very low	
ligh income 6	randomized trials	very serious ^b	not serious	not serious	not serious	none	436	358	-	SMD 0.21 SD lower (0.39 lower to 0.03 lower)	⊕⊕⊖ ⊖ Low	
ack-specific f	functional status	– short ter	m									<u> </u>

			Certainty asses	sment			Nº of ∣	patients		Effect		
№ of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
10 ⁹	randomized trials	very serious ^b	serious ^c	not serious	Not serious	none	506	527	-	SMD 0.47 SD lower (0.69 lower to 0.24 lower)	⊕OO ○	
Demoletien											Very low	
· ·	ubgroups 1 and 2	· ·		nalysis was per	formed)							
Population su	ubgroup 3: presen	ce of radic	ular leg pain	1						1		1
Excluded leg pain 2	randomized trials	very serious ^b	serious ^c	not serious	Very serious ^s	none	84	90	-	SMD 0.1 SD higher (1.01 lower to 1.22 higher)	⊕00 0	
											Very low	
Mixed 8	randomized trials	very serious ^b	serious°	not serious	serious ⁱ	none	422	437	-	SMD 0.55 SD lower (0.78 lower to 0.31 lower)	⊕OO ○	
											Very low	
Population su	ubgroup 4: region	al economi	c development	1								1
Low/middle income 2	randomized trials	very serious ^b	serious⁰	not serious	Very seriouss	none	104	108	-	SMD 0.16 SD higher (0.83 lower to 1.14 higher)	⊕OO ○	
											Very low	
High income 8	randomized trials	very serious ^b	serious ^c	not serious	serious ⁱ	none	402	419	-	SMD 0.57 SD lower (0.79 lower to 0.34 lower)	⊕OO ○	
											Very low	
Back-specific	functional status	- intermed	iate term	<u> </u>			I		I			
6 ^h	randomized trials	very serious ^b	serious⁰	not serious	Not serious	none	394	392	-	SMD 0.43 SD lower (0.66 lower to 0.19 lower)	⊕OO ○	
											Very low	

			Certainty asses	sment			Nº of	patients		Effect		
Nº of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Population su	bgroups 1 and 2	- not report	ed (no subgroup a	nalysis was perl	ormed)							,
Population su	bgroup 3: presen	ce of radic	ular leg pain									
Excluded leg pain 1	randomized trials	very serious ^b	Not serious ^o	not serious	serious ^p	none	68	72	-	SMD 0.2 SD lower (0.53 lower to 0.13 lower)	⊕OO ○	
											Very low	
Mixed 5	randomized trials	very serious ^b	serious⁰	not serious	serious ⁱ	none	326	320	-	SMD 0.49 SD lower (0.77 lower to 0.21 lower)	⊕OO ○	
											Very low	
Population su	bgroup 4: regiona	al economi	c development	1			1	1		1	1	1
Low/middle income 1	randomized trials	very serious ^b	Not serious ^o	not serious	serious ^p	none	92	96	-	SMD 0.32 SD lower (0.6 lower to 0.03 lower)	⊕OO ○	
											Very low	
High income 5	randomized trials	very serious ^b	serious⁰	not serious	serious ^ı	none	302	296	-	SMD 0.47 SD lower (0.77 lower to 0.17 lower)	⊕OO ○	
											Very low	
Back-specific	functional status	- long term	1					1	1	1	1	
7 ⁱ	randomized trials	very serious ^b	not serious	not serious	not serious	none	467	397	-	SMD 0.25 SD lower (0.4 lower to 0.11 lower)	@@ O	
											Low	
Population su	bgroups 1 and 2	- not report	ed (no subgroup a	nalysis was per	ormed)		1	1		1	1	
•	bgroup 3: presen	· ·		,	/							

			Certainty asses	sment			Nº of µ	patients		Effect		
№ of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Excluded leg pain 1	randomized trials	very serious ^b	not seriousº	not serious	Very serious ^s	none	12	11	-	SMD 0.26 SD lower (1.08 lower to 0.57 higher)	⊕OO ○	
Mixed 6	randomized trials	very serious ^b	not serious	not serious	not serious	none	455	386	-	SMD 0.26 SD lower (0.42 lower to 0.09 lower)	Very low	
Population su	ubgroup 4: regiona	al economi	c development									
Low/middle income 2	randomized trials	very serious ^b	not serious	not serious	Serious ^p	none	81	88	-	SMD 0.34 SD lower (0.65 lower to 0.04 lower)	⊕⊖⊖ ⊖ Very low	
High income 5	randomized trials	very serious ^b	not serious	not serious	not serious	none	386	309	-	SMD 0.24 SD lower (0.43 lower to 0.05 lower)	⊕⊕⊖ ⊖ Low	
General funct	tional status - sho	rt term, inte	ermediate term or	long term: no :	studies were ide	ntified that reported	on this out	come				
-	-	-	-	-	-	-	-	-	-	-	-	
Health-related	d quality of life - sl	hort term							1	1		1
3і	randomized trials	very serious ^b	serious⁰	not serious	serious ⁱ	none	151	143	-	SMD 0.4 SD lower (1.11 lower to 0.31 higher)	⊕OO ○	
											Very low	
opulation su	ubgroup 1: gender	/sex										

			Certainty asses	sment			Nº of p	patients		Effect		
№ of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
Female 1	randomized trials	very serious ^b	Not serious ^o	not serious	serious ^p	none	37	37	-	SMD 1.08 SD lower (1.57 lower to 0.59 lower)	⊕00 0	
											Very low	
Mixed	randomized	very	seriousc	not serious	serious ^ı	none	114	106	-	SMD 0.05 SD lower	⊕00	
2	trials	serious ^b								(0.49 lower to 0.38 higher)	\bigcirc	
											Very low	
Population su	ıbgroup 2: race/et	hnicity - no	ot reported (no sub	group analysis	was performed; r	no study included marg	inalized pop	oulations)				
Population su	ıbgroup 3: presen	ce of radic	ular leg pain									
Excluded leg pain 1	randomized trials	very serious ^b	Not serious ^o	not serious	serious ⁱ	none	73	77	-	SMD 0.14 SD higher (0.18 lower to 0.46 higher)	⊕00	
I										nigher)	Very low	
Mixed	randomized	very	seriousc	not serious	serious ⁱ	none	78	66	-	SMD 0.7 SD lower	00	
2	trials	serious ^b								(1.45 lower to 0.05 higher)	\bigcirc	
											Very low	
Population su	ubgroup 4: regiona	al economi	c development									
Low/middle income 1	randomized trials	very serious ^b	Not serious ^o	not serious	serious ^p	none	37	37	-	SMD 1.08 SD lower (1.57 lower to 0.59 lower)	⊕OO ○	
											Very low	
High income 2	randomized trials	very serious ^b	serious ^c	not serious	serious ⁱ	none	114	106	-	SMD 0.05 SD lower (0.49 lower to 0.38	⊕00	
										higher)	Vonulow	
											Very low	

			Certainty asses	sment			Nº of p	patients		Effect		
№ of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
3і	randomized trials	very serious ^b	not serious ^k	not serious	not serious	none	147	137	-	SMD 0.23 SD lower (0.58 lower to 0.12 higher)	$ \begin{array}{c} \\ \\ \bigcirc \end{array} $	
											Low	
opulation su	ubgroup 1: gender	/sex							1	1		
Female 1	randomized trials	very serious ^b	not serious ^o	not serious	Serious ^p	none	37	37	-	SMD 0.54 SD lower (1.01 lower to 0.08 lower)	⊕OO ○	
										iowei)	Very low	
Mixed 2	randomized trials	very serious ^b	not serious	not serious	Serious ⁱ	none	110	100	-	SMD 0.08 SD lower (0.38 lower to 0.23	⊕00	
										higher)	O Very low	
Population su	ubgroup 2: race/et	hnicity - no	t reported (no sub	group analysis	was performed; n	o study included marg	jinalized pop	oulations)		1		
Population su	ubgroup 3: presen	ce of radic	ular leg pain									
Excluded leg pain 1	randomized trials	very serious ^b	not seriousº	not serious	Serious ^ı	none	69	71	-	SMD 0.04 SD higher (0.29 lower to 0.37 higher)	⊕OO ○	
											Very low	
Mixed 2	randomized trials	very serious ^b	not serious	not serious	Serious ^p	none	78	66	-	SMD 0.42 SD lower (0.75 lower to 0.08	⊕00	
										lower)	\bigcirc	
			• • •								Very low	
opulation su	ubgroup 4: regiona	al economic	c development				1			1		
Low/middle income 1	randomized trials	very serious ^b	not serious⁰	not serious	Serious ^p	none	37	37	-	SMD 0.54 SD lower (1.01 lower to 0.08 lower)	⊕OO ○	
										, ,	Very low	

Ne of studies Study design Nisk of bias Inconsistency Indirectness s Imprecision Other considerations MBR Usual care Relative (95% CI) Absolute (95% CI) Certainty Imprecision High income 2 randomized trials very serious ³ not serious Serious ¹ none 110 100 - SMD 0.08 SD lover (0.38 lover tot.) (0.38 lover tot.) higher)				Certainty asses	sment			Nº of µ	patients		Effect		
2trialsseriousseriouserror <tho< th=""><th></th><th>Study design</th><th></th><th>Inconsistency</th><th></th><th>Imprecision</th><th></th><th>MBR</th><th></th><th></th><th></th><th>Certainty</th><th>Importance</th></tho<>		Study design		Inconsistency		Imprecision		MBR				Certainty	Importance
Image: constraint of the second se				not serious	not serious	Serious	none	110	100	-	(0.38 lower to 0.23	⊕00	
Health-related quality of life - long term: no studies were identified that reported on this outcome <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>higher)</td><td></td><td></td></td<>											higher)		
Image: constraint of the constr												Very low	
Adverse events or serious adverse events: no studies were identified that reported on this outcomePsychological functioning (depression) - short term1'randomized trialsvery serious ^b not serious ^b not serious ^b Serious ^b not serious ^b Serious ^b not serious ^b No	Health-related	d quality of life - lo	ng term: n	o studies were ide	entified that rep	orted on this ou	utcome						
Image: constraint of the constr	-	-	-	-	-	-	-	-	-	-	-	-	
Psychological functioning (depression) - short term11randomized trialsvery serious ^o not serious ^o not serious ^o not serious ^o not serious ^o Serious ^o not serious ^o none1315-MD 4.4 lower (9.99 lower to 1.19 higher) \bigcirc O O Very lowPopulation subgroups 1, 2, 3 and 4 - not reported (no subgroup analysis was performed; only one study included on this outcomePsychological functioning - intermediate term: no studies were identified that reported on this outcomePsychological functioning (depression) - long term1 ⁿ randomized trialsvery serious ^b not serious ^o not serious ^o Serious ^o serious ^o not serious ^o serious ^o Not serious serious ^o All orMD 0.7 lower (2.27 lower to 0.87 higher) \bigcirc O O O	Adverse even	nts or serious adve	erse events	: no studies were	identified that	reported on this	soutcome			1	1		
1'randomized trialsvery serious ^o not serious not seriousSerious ^p none1315-MD 4.4 lower (9.99 lower to 1.19 higher) \bigcirc \bigcirc Very lowPopulation subgroups 1, 2, 3 and 4 - not reported (no subgroup analysis was performed; only one study included on this outcome)Psychological functioning - intermediate term: no studies were identified that reported on this outcomePsychological functioning (depression) - long term1nrandomized trialsvery serious ^b not serious not seriousSerious ^p none6143-MD 0.7 lower (2.27 lower to 0.87 higher) \bigcirc O	-	-	-	-	-	-	-	-	-	-	-	-	
trialsseriousbseriousbImage: seriousbImage: serio	Psychologica	al functioning (dep	ression) - s	short term						1			1
Image: border	11			not seriousº	not serious	Serious ^p	none	13	15	-		⊕00	
Image: constraint of the series of the se		trials	serious ^b									\circ	
Psychological functioning - intermediate term: no studies were identified that reported on this outcomePsychological functioning (depression) - long term1nrandomized trialsvery seriousbnot seriousoSeriouspnone6143-MD 0.7 lower (2.27 lower to 0.87 higher) $\bigoplus \bigcirc$ (2.27 lower to 0.87 higher) $\bigoplus \bigcirc$ (2.27 lower to 0.87 higher)												Very low	
Image: Second	Population su	ubgroups 1, 2, 3 aı	nd 4 - not re	eported (no subgro	up analysis was	s performed; only	one study included or	n this outcom	ne)			1	
Psychological functioning (depression) - long term1nrandomized trialsvery seriousbnot seriousSeriouspnone6143-MD 0.7 lower (2.27 lower to 0.87 higher) $\bigoplus \bigcirc$ \bigcirc	Psychologica	al functioning - inte	ermediate t	erm: no studies w	vere identified t	hat reported on	this outcome						
$1^{n} \frac{\text{randomized}}{\text{trials}} \frac{\text{very}}{\text{serious}^{b}} \text{not serious}^{\circ} \text{not serious}^{\circ} \frac{\text{Serious}^{p}}{\text{serious}^{p}} \frac{\text{none}}{\text{none}} \frac{61}{61} \frac{43}{43} \frac{\text{MD 0.7 lower}}{\binom{2.27 \text{ lower to 0.87 }}{\text{higher}}} \frac{\text{O}}{\text{O}} \frac{1}{1000} \frac{1}{10000} \frac{1}{10000} \frac{1}{10000} \frac{1}{10000} \frac{1}{100000} \frac{1}{10000000} \frac{1}{10000000000000000000000000000000000$	-	-	-	-	-	-	-	-	-	-	-	-	
trials serious ^b (2.27 lower to 0.87 higher)	Psychologica	al functioning (dep	ression) - I	ong term				<u> </u>	1	1	1	1	1
higher)	1 ⁿ			not seriousº	not serious	Serious ^p	none	61	43	-		⊕00	
		trials	serious ^b									\bigcirc	
												Very low	
Population subgroups 1, 2, 3 and 4 - not reported (no subgroup analysis was performed; only one study included on this outcome)	Donulation	ubarouna 4 0 0	d 4	norted (no out and		norformade ante		this outcom			<u> </u>	,	

	Certainty assessment							№ of patients		Effect		
№ of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	inty Importanc
11	randomized trials	very serious ^b	not seriousº	not serious	serious ^p	none	13	15	-	MD 12.3 lower (20.52 lower to 4.08 lower)	⊕00	
										lowery	Very low	
Population s	ubgroups 1, 2, 3 ar	nd 4 - not re	eported (no subgro	oup analysis wa	s performed; only	one study included o	n this outcom	ne)		1		1
Psychologica	al functioning (anx	iety) - inter	mediate term – no	studies identi	fied that reporte	d on this outcome						
-	-	-	-	-	-	-	-	-	-	-	-	
Psychologica	al functioning (anx	iety) - long	term									
1 ⁿ	randomized trials	very serious ^b	not seriousº	not serious	serious ^p	none	61	43	-	MD 1.9 lower (3.65 lower to 0.15 lower)	⊕ 00	
										,	Very low	
Population s	ubgroups 1, 2, 3 ar	nd 4 - not re	eported (no subgro	bup analysis wa	s performed; only	one study included o	n this outcom	ne)	1	1		
Social partici	pation (work) - she	ort term										
3p	randomized trials	very serious ^b	serious∘	not serious	very serious ^s	none	157/212 (74.1%)	162/255 (63.5%)	RR 1.30 (0.73 to 2.34)	191 more per 1000 (from 172 fewer to 851 more)	⊕ ○○ ○	
											Very low	
Population s	ubgroups 1, 2, 3 ar	nd 4 - not re	eported (no subgro	oup analysis wa	s performed)		-	1				
Social partici	pation (work) - inte	ermediate t	erm									
2 ^r	randomized trials	very serious ^b	serious⁰	not serious	very serious ^s	none	133/167 (79.6%)	144/196 (73.5%)	RR 1.08 (0.73 to 1.60)	59 more per 1000 (from 198 fewer to 441 more)	⊕00	
										, ,	Very low	
Population s	ubgroups 1, 2, 3 ar	nd 4 - not re	eported (no subgro	up analysis wa	s performed)		1	<u> </u>	1	1	1	1
Social partici	pation - long term											

Certainty assessment							№ of patients		Effect			
№ of studies	Study design	Risk of bias	Inconsistency	Indirectnes s	Imprecision	Other considerations	MBR	Usual care	Relative (95% Cl)	Absolute (95% Cl)	Certainty	Importance
7s	randomized trials	very serious ^b	not serious	not serious	not serious	none	526/701 (75.0%)	483/648 (74.5%)	RR 1.00 (0.93 to 1.08)	0 fewer per 1000 (from 52 fewer to 60 more)	$\oplus \oplus \bigcirc$	
											\bigcirc	
											Low	
Population su	ubgroups 1, 2, 3 aı	nd 4 - not re	eported (no subgro	oup analysis was	performed)				-1	*		
Self-efficacy	- short term, interr	nediate ter	m or long term: no	o studies were i	identified that re	eported on this outco	ome					
-	-	-	-	-	-	-	-	-			-	

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

Explanations

a. Abbasi 2012, Basler 1997, Bendix 1996, Lambeek 2010, Moix 2003, Morone 2011, Morone 2012, Tavafian 2007, Tavafian 2011, Von Korff 2005

b. Risk of bias downgraded by 2 levels for unclear or high risk of bias in all studies for random sequence generation, allocation concealment, blinding of participants, clinicians, and outcome assessors, incomplete outcome data, selective reporting, compliance, and co-interventions.

c. Inconsistency downgraded by 1 level for substantial statistical heterogeneity not explained by subgroup analyses (I-sq > 60%)

d. Imprecision downgraded by 1 level for wide confidence intervals that encompass a potential benefit and little to no effect. We re-expressed the SMD as mean difference on a 0 to 100 pain scale using an SD of 20

(i.e. average SD from control groups that used this scale) which gave MD -10.4 (-15.4 to -5.4). The minimal important difference on the 0 to 100 pain scale is approximately 15.

e. Lambeek 2010, Morone 2011, Morone 2012, Tavafian 2011, Von Korff 2005

f. Imprecision downgraded by 1 level for wide confidence intervals that encompass a potential benefit and little to no effect. We re-expressed the SMD as mean difference on a 0 to 100 pain scale using an SD of 20 (i.e. average SD from control groups that used this scale) which gave MD -12.4 (-18.6 to -6.2). The minimal important difference on the 0 to 100 pain scale is approximately 15.

g. Abbasi 2012, Bendix 1996, Lambeek 2010, Linton 2005, Lukinmaa 1989, Strand 2001, Tavafian 2011, Von Korff 2005

h. Abbasi 2012, Basler 1997, Bendix 1996, Lambeek 2010, Moix 2003, Morone 2011, Morone 2012, Tavafian 2011, Vollenbroek-Hutten 2004, Von Korff 2005

i. Lambeek 2010, Morone 2011, Morone 2012, Tavafian 2011, Vollenbroek-Hutten 2004, Von Korff 2005

j. Abbasi 2012, Lambeek 2010, Linton 2005, Lukinmaa 1989, Strand 2001, Tavafian 2011, Von Korff 2005

k. Morone 2011, Tavafian 2007, Vollenbroek-Hutten 2004

I. Imprecision downgraded by 1 level for wide confidence intervals that encompass a potential benefit and little to no effect.

m. Despite some statistical heterogeneity, this was largely explained by the subgroup analyses.

n. Moix 2003

o. Inconsistency not assessed, only one study included on this outcome

p. Imprecision downgraded by 1 level due to small sample size.

q. Linton 2005

r. Bendix 1996, Skouen 2002, Von Korff 2005

s. Imprecision downgraded by 2 levels for very wide confidence intervals that encompass a potential harm, no effect, and a potential benefit.

t. Skouen 2002, Von Korff 2005

u. Bendix 1996, Linton 2005, Lukinmaa 1989, Mitchell 1994, Skouen 2002, Strand 2001, Von Korff 2005.