	Multiple sclerosis		Multiple sclerosis		Stroke	
Study ID	**Guclu-Gunduz 2014**		**Kara 2017**		**Yun 2017**	
	Judgement	**Comments**	**Judgement**	**Comments**	**Judgement**	**Comments**
Bias due to confounding	N	It is likely that the potential for confounding to effect the intervention in this study was limited/controlled for. There were no significant between-group differences at baseline.	N	It is likely that the potential for confounding to effect the intervention in this study was limited/controlled for. There were no significant between-group differences at baseline.	PY	There is potential for confounding however reliability and validity of measurement of important domains were sufficient, such that we do not expect serious residual confounding.
	NA	Not applicable.	NA	Not applicable.	Y	
	NA	Not applicable.	NA	Not applicable.	NI	No mention of discontinuations or switches.
	NA	Not applicable.	NA	Not applicable.	NA	Not applicable.
	NA	Not applicable.	NA	Not applicable.	NA	Not applicable.
	NA	Not applicable.	NA	Not applicable.	NA	Not applicable.
	NA	Not applicable.	NA	Not applicable.	NA	Not applicable.
	NA	Not applicable.	NA	Not applicable.	NA	Not applicable.
	Low		Low		Moderate	

	Multiple sclerosis		Multiple sclerosis		Stroke	
Study ID	**Guclu-Gunduz 2014**		**Kara 2017**		**Yun 2017**	
	Judgement	**Comments**	**Judgement**	**Comments**	**Judgement**	**Comments**
Bias of selection of participants into the study	N	Selection was based on the charateristics observed before the start of the intervention and potential confounding was controlled for prior to enrolment	N	Selection was based on the charateristics observed before the start of the intervention and potential confounding was controlled for prior to enrolment	N	Selection was based on characteristics observed before the start of intervention and were addressed by controlling for imbalances between experimental intervention and comparator groups in baseline characteristics that are prognostic for the outcome.
	NA	Not applicable.	NA	Not applicable.	NA	Not applicable.
	NA	Not applicable.	NA	Not applicable.	NA	Not applicable.
	Y	Participant observation occurred at comparable time points.	Y	Participant observation occurred at comparable time points.	Y	Participants outcome observation occurred at comparable time points.
	NA	Not applicable.	NA	Not applicable.	NA	Not applicable.
	Low		Low	Not assessed	Low	
Bias in classification of interventions	Y	The intervention groups are clearly defined by type, setting, frequency, intensity and/or timing of intervention.	Y	The intervention groups are clearly defined by type, setting, frequency, intensity and/or timing of intervention.	Y	Criteria for considering individuals to have received each intervention was clear and explicit, covering issues such as type, setting, dose, frequency, intensity and/or timing of intervention.
	Y	Interventions are clearly defined at start	Y	Interventions are clearly defined at start	Y	Information about interventions received is available from sources that could not have been affected by subsequent outcomes.
	N	Classification of intervention status is clearly defined	N	Classification of intervention status is clearly defined	N	Classification of intervention status is clearly defined
	Low		Low		Low	

	Multiple sclerosis		Multiple sclerosis		Stroke	
Study ID	**Guclu-Gunduz 2014**		**Kara 2017**		**Yun 2017**	
	Judgement	**Comments**	**Judgement**	**Comments**	**Judgement**	**Comments**
Bias due to deviations from intended interventions	PY	Of 24 participant, 6 did not continue the program (25%). Reasons not provided, but assumed not beyond what would be anticipated in usual practice.	Y	Of 28 participant in the aerobic group, 2 were lost to followup (7%). In the Pilates group, data were missing for 18/27 (67%) participants, this beyond what would be anticipated in usual practice.	NI	The Invesitgators did not explictly state whether deviations arose because of the trial context.
	PY	Information is not clear regarding which intervention groups droppout occured. This could the potentially impact the results.	Y	High attrition in the Pilates group (>50%)	NI	No information
	NI	There were no co-interventions discussed in this study.	NI	There were no co-interventions discussed in this study.	NI	There were no co-interventions reported in this study.
	Y	There is no reason to believe the interventions were not delivered as intended	Y	There is no reason to believe the interventions were not delivered as intended	Y	There is no reason to believe the interventions were not delivered as intended and any impact is expected to be slight.
	Y	Adherence to assigned intervention was high for the Pilates and control groups.	N	Proportion of patients who failed to adhere to Pilates is high enough to raise concerns	PY	There is no information provided by the investigators to suggest study participants adherence to the assigned intervention did not occur outside usual practice.
	NA	Not applicable.	N	No adjustments made to account for dropouts in the Pilates group	NI	No information
	Moderate		Critical		Moderate	
Bias due to missing data	PY	Outcome data appear to be available for all participants (N=24)	NA	Not assessed	PY	Outcome data appear to be available for all enrolled participants (N=4o)
	PN	Authors not clear on reasons for exclusion. It is presumed all available data is included in the anlaysis		Not assessed	NI	The investigators do not explictly state if participants were excluded due to missing data on intervention status.
	PN	Authors not clear on reasons for exclusion. It is presumed all available data is included in the anlaysis and are minially different across groups	NA	Not assessed	NI	The investigators do not explictly state if participants were excluded due to missing data on intervention status.

	Multiple sclerosis		Multiple sclerosis		Stroke	
Study ID	**Guclu-Gunduz 2014**		**Kara 2017**		**Yun 2017**	
	Judgement	**Comments**	**Judgement**	**Comments**	**Judgement**	**Comments**
	NA	Not applicable.	NA	Not assessed	NA	Not applicable.
	NA	Not applicable.	NA	Not assessed	NA	Not applicable.
	Moderate				Low	
Bias in measurement of outcomes	Y	Participant/observer reported outcomes could be influenced by knowledge of the intervention received as they require judgement that is susceptible to measurement bias.	NA	Not assessed	Y	Participant-reported outcomes could be influenced by knowledge of the intervention (HRQoL).
	PY	No explict statement if outcome assessors were blinded to intervention status.	NA	Not assessed	Y	Outcome is patient-reported, who were aware of the intervention received.
	Y	The same measurement methods and thresholds were used at comparable time points.	NA	Not assessed	Y	The same measurement methods and thresholds were used at comparable time points.
	N	The same measurement methods and thresholds are used at comparable time points.	NA	Not assessed	NI	There is no evidence to suggest that the outcome assessors were influenced by knowledge of the intervention received (minimial influence).
	Moderate				Moderate	
Bias in selection of the reported result	N	Study was regiseterd a priori. All eligible outcome measurements available	NA	Not assessed	N	Study was regiseterd a priori. All eligible outcome measurements appear available
	N	There is no indication of selection of the reported analysis from among multiple analyses	NA	Not assessed	N	There is no indication of selection of the reported analysis from among multiple analyses
	N	No subgroups	NA	Not assessed	N	No subgroups
	Low				Low	

	Multiple sclerosis		Multiple sclerosis		Stroke	
Study ID	**Guclu-Gunduz 2014**		**Kara 2017**		**Yun 2017**	
	Judgement	**Comments**	**Judgement**	**Comments**	**Judgement**	**Comments**
Overall bias of the study	Moderate risk	The study appears to provide sound evidence for a nonrandomised study but cannot be considered comparable to a well-performed randomised trial.	Critical risk	The study is too problematic to provide any useful evidence about the effectiveness of the intervention.	Moderate risk	The study appears to provide sound evidence for a nonrandomised study but cannot be considered comparable to a well-performed randomised trial.

Y = yes; PY= partial yes; N = no, PN = partial no; NI = no information; NA = not applicable

Source: Chapter 8 Cochrane handbook for systematic reviews of interventions.

a. For the precise wording of signalling questions and guidance for answering each one, see the full risk-of-bias tool at www.riskofbias.info.

	Hypertension	
Study ID	**Martins-Meneses 2015**	
	Judgement	**Comments**
Bias due to confounding	PY	The potential for confounding to effect the intervention in this study is likely to be limited. There were no significant between-group differences in the initial values of most of the studied parameters. Baseline characteristics were only presented for participants who remained in the study at follow-up, so unable to assess true baseline for the whole study population.
	NA	Not applicable.
	NA	Not applicable.
	NA	Not applicable.
	NA	Not applicable.
	N	There is no evidence in the publication that the trialists controlled for any post-intervention variables that could have been affected by the intervention.

	Hypertension	
Study ID	**Martins-Meneses 2015**	
	Judgement	**Comments**
	N	The trialists used a general linear model to model analysis of variance. Standard regression models that include time-updated confounders (i.e. BMI) may be problematic if time-varying confounding is present.
	NA	Not applicable.
	Moderate	
Bias of selection of participants into the study	N	Subjects selected based on convenience. Selection into the study was before the start of the intervention.
	NA	Not applicable.
	NA	Not applicable.
	Y	Participants are followed from the start of the intervention.
	NA	Not applicable.
	Low	
	Y	The intervention groups were clearly defined.

	Hypertension	
Study ID	**Martins-Meneses 2015**	
	Judgement	**Comments**
Bias in classification of interventions	Y	Study participants were divided into intervention groups. Intervention status was recorded. Subjects who were more readily able to produce a medical permit to participate in exercise may have been healthier or more motivated to participate, which is likley affected by the risk of the outcome.
	Y	Participants were classifed based on how readily they could produce a medical permit from their cardiologist. It is likely this could have resulted in biased classification.
	Serious	
Bias due to deviations from intended interventions	Y	The rate of drop out is high (21/70, 30%) and above what is considered usual practice. A further 5 were excluded because they attended less than 75% of sessions. Importantly, participants who had systolic BP above 160 mm Hg and/or diastolic BP above 105 mm Hg before the session, were exempted from the session suggesting those with worse disease state were more likley to miss sessions.
	PY	Total 15/37 (40.5%) inthe Pilates group and 11/33 (33.3%) in the control. Effect on outcomes unclear.
	PY	co-interventions not described or discussed
	N	There is no reason to suspect the intervention was not delivered as would be seen in usual practice.

	Hypertension	
Study ID	**Martins-Meneses 2015**	
	Judgement	**Comments**
	N	There was a lack of adherence to the trial protocol due to imperfect compliance on behalf of the participants.
	N	The study only examined the participants who completed the study, rather than according to their assigned intervention. Analyses excluding eligible trial participants, post-enrolment, should be considered inappropriate.
	Critical	Critical risk of bias due to substantial deviations from the intended intervention in terms of adherence, with inappropriate analysis methods to adjust for this.
Bias due to missing data	NA	Not assessed
	Y	Not assessed
	Y	Not assessed
	N	Not assessed
	N	Not assessed
	Critical	
	NA	Not assessed

	Hypertension	
Study ID	**Martins-Meneses 2015**	
	Judgement	**Comments**
Bias in measurement of outcomes	NA	Not assessed
	NA	Not assessed
	NA	Not assessed
	Critical	Not assessed
Bias in selection of the reported result	NA	Not assessed
	NA	Not assessed
	NA	Not assessed
	Critical	Not assessed
Overall bias of the study	Critical risk	The study is too problematic to provide any useful evidence about the effectiveness of the intervention.

Y = yes; PY= partial yes; N = no, PN = partial no; NI = no information; NA = not applicable
Source: Chapter 8 Cochrane handbook for systematic reviews of interventions.
a. For the precise wording of signalling questions and guidance for answering each one, see th

	Low back pain (chronic, nonspecific)	
Study ID	**Kliziene 2017**	
	Judgement	**Comments**
Bias due to confounding	Y	There is no evidence that pre-intervention variables (i.e. age, sex, physical activity, BMI etc) that have the potential for confounding of the effect of intervention in this study, have been controlled for.
	NA	Participants could not switch between intervention groups. There is no association between intervention and outcome that may be biased by time-varying confounding.
	NA	No mention of discontinuations or switches.
	NI	There is no evidence suggesting that the authors used an appropriate analysis method that controlled for all the important confounding domains.
	NA	Not applicable.
	NA	Not applicable.

	Low back pain (chronic, nonspecific)	
Study ID	**Kliziene 2017**	
	Judgement	**Comments**
	NA	Not applicable.
	NA	Not applicable.
	Moderate	
Bias of selection of participants into the study	N	Selection was based on the characteristics observed before the start of the intervention and potential confounding was controlled for prior to enrolment
	NA	Not applicable.
	NA	Not applicable.
	Y	Participant observation occurred at comparable time points.
	NA	Not applicable.
	Low	
	Y	The intervention groups are clearly defined by type, setting, frequency, intensity and/or timing of intervention.

	Low back pain (chronic, nonspecific)	
Study ID	**Kliziene 2017**	
	Judgement	**Comments**
Bias in classification of interventions	Y	Interventions are clearly defined at start. There was strict inclusion and exclusion criteria used before commencement of the trial.
	N	Classification of intervention status is clearly defined
	Low	
Bias due to deviations from intended interventions	NI	No mention of discontinuations or switches.
	NI	No information
	NI	The investigators did not report the use of co-interventions in this study.
	NI	No information
	NI	No information
	NI	No information
	No information	
	NI	No information
	NI	No information

	Low back pain (chronic, nonspecific)	
Study ID	**Kliziene 2017**	
	Judgement	**Comments**
Bias due to missing data	NI	No information
	NI	No information
	NI	No information
	No information	
Bias in measurement of outcomes	Y	Participant/observer reported outcomes could be influenced by knowledge of the intervention received as they require judgement that is susceptible to measurement bias.
	PY	No explict statement if outcome assessors were blinded to intervention status.
	Y	The same measurement methods and thresholds were used at comparable time points.
	N	The same measurement methods and thresholds are used at comparable time points.
	Moderate	
Bias in selection of the reported result	PY	No information about prior approval.
	PY	It is possible there is selection of the reported analysis from among multiple analyses
	PN	There is no indication of selection of the reported analysis from among multiple subgroups

	Low back pain (chronic, nonspecific)	
Study ID	**Kliziene 2017**	
	Judgement	**Comments**
	Serious	
Overall bias of the study	Serious risk	The study has some important problems

Y = yes; PY= partial yes; N = no, PN = partial no; NI = no information; NA = not applicable
Source: Chapter 8 Cochrane handbook for systematic reviews of interventions.
a. For the precise wording of signalling questions and guidance for answering each one, see th

	Age-related physcial and mental decline	
Study ID	**Gandolfi 2020**	
	Judgement	**Comments**
Bias due to confounding	PY	Sample is a group of elderly women selected based on prespecified criteria, which reduced the potential for confounding
	N	There is no indication in this trial that study participants switched between groups.
	N	2 droppouts in each group, not likley related to factors prognostic of the outcome
	Y	Groups were paired by age and body mass index
	Y	Age, BMI controlled for. Osteoporosis risk not mentioned or covered, and may effect bone remodelling markers
	N	No, the trialists did not control for any post intervention variables.
	PN	No adjustments for potential confounding

	Age-related physcial and mental decline	
Study ID	**Gandolfi 2020**	
	Judgement	**Comments**
	NA	Not applicable.
	Moderate	
Bias of selection of participants into the study	N	All participant enrolled prior to start of the intervention
	NA	Not applicable
	NA	Not applicable
	Y	All participant enrolled prior to start of the intervention
	NA	Not applicable
	Low	
Bias in classification of interventions	Y	Intervention/control groups prespecified
	Y	Intervention/control groups prespecified
		Intervention definition is based solely on information collected at the time of intervention.
	Low	

	Age-related physcial and mental decline	
Study ID	**Gandolfi 2020**	
	Judgement	**Comments**
Bias due to deviations from intended interventions	N	2 participants in each group lost to follow, which is as expected in usual practice
	N	Balanced between groups
	NI	No information on co-intervenitons provided
	Y	<10% droppout in each group
	Y	
	NA	Not applicable
	Low	
Bias due to missing data	Y	Outcome data were missing for 4/44 participants (<10%)
	N	All randomised participants included
	Y	Outcome data were missing for 4/44 participants (<10%)
	Y	Proportions of and reasons for missing participants were balanced across intervention groups
	N	No assessment of the missing data conducted.
	Moderate	

	Age-related physcial and mental decline	
Study ID	**Gandolfi 2020**	
	Judgement	**Comments**
Bias in measurement of outcomes	Y	Subjective bias related to participant reported outcomes (QoL) Markers (bone, Ca, thyroid hormone) not subject to bias
	Y	Participant reported (QoL
	Y	Methods of outcme assessment were comparable across intervention groups
	Y	Any error in measuring the outcome is only minimally related to intervention status
	Moderate	Low risk for biological markers
Bias in selection of the reported result	PN	all reported results correspond to all intended outcomes, analyses and sub cohorts
	N	all reported results correspond to all intended outcomes, analyses and sub cohorts
	PN	all reported results correspond to all intended outcomes, analyses and sub cohorts
	Low	
Overall bias of the study	Moderate risk	The study appears to provide sound evidence for a nonrandomised study but cannot be considered comparable to a well-performed randomised trial.

Y = yes; PY= partial yes; N = no, PN = partial no; NI = no information; NA = not applicable
Source: Chapter 8 Cochrane handbook for systematic reviews of interventions.
a. For the precise wording of signalling questions and guidance for answering each one, see th