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Supplement 3: The quality of the RCTs found was assessed using the RoB 2.<sup>1</sup>

Author	Diagnosis	Experimental	Comparator	(primary) Outcome	Randomization process	Deviations from intended interventions	Missing outcome data	Measurement of the outcome	Selection of the reported result	Overall
Allaire, et al. <sup>2</sup>	SLE	Job retention intervention	Written materials only	Job loss events	?	-	-	+	?	-
Austin, et al. <sup>3</sup>	SLE	Telephone intervention	Symptom monitoring	Health outcomes (general)	?	•	+	+	?	•
Avaux, et al. 4	SLE	Supervised training (ST), home training (HT)	No intervention	Fatique	-	•	•	+	?	•
Benatti, et al. <sup>5</sup>	SLE	Exercise training	No intervention	Lipid profile, composition of high-density lipoprotein (HDL)	-	•	+	+	+	
Berdal, et al. <sup>6</sup>	SLE	Add-on structured goal- planning and supportive telephone follow-up rehabilitation program	Usual Care	Quality of life	+	+	-	-	+	•
Bogdanovic, et al. <sup>7</sup>	SLE	Aerobic exercises	Isotonic exercises	Quality of life	-	•	+	+	?	
Boström, et al. 8	SLE	Physical activity	Usual care	Aerobic capacity	-	+	+	+	+	•
Brown, et al. 9	SLE	Cognitive behavioral therapy/ Education only	No intervention	Pain, disease adjustment and adaptation, quality of life	?	?	+	+	?	!
Daltroy, et al. 10	SLE	Exercise prescription and unsupervised home exercise	No intervention	Exercise tolerance, fatigue, depression, helplessness	-	-	-	+	?	
Dobkin, et al. 11	SLE	Brief supportive expressive group psychotherapy	Usual care	Psychological distress, medical symptoms, health care costs, improving quality of life	?	?	•	+	?	
Edworthy, et al.	SLE	Brief supportive-expressive group psychotherapy	Usual care	Reduce illness-induced interference with valued activities and interests	?	?	+	+	?	!

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					Randomization process	Deviations from intended interventions	Missing outcome data	Measurement of the outcome	Selection of the reported result	rall
Author	Diagnosis	Experimental	Comparator	(primary) Outcome	Ran	Dev inte	Mis	Mea	Sele repo	Overall
Greco, et al. <sup>13</sup>	SLE	Stress-reduction program	Usual care, symptom monitoring	Pain, psychological function, physical function	?	+	•	•	?	!
Kankaya and Karadakovan <sup>14</sup>	SLE	Web-based education and counselling	Usual Care	Self-efficacy	?	?	?	?	?	!
Karlson, et al. <sup>15</sup>	SLE	Psychoeducational intervention	Attention intervention	Patient self-efficacy and partner support	?	?	+	+	?	!
Keramiotou, et al. <sup>16</sup>	SLE	Individually tailored 30-min daily upper-limb exercise programme	Usual Care	Function	-	+	+	+	+	-
Li, et al. <sup>17</sup>	SLE	Physical Activity Counselling Program with Use of Wearable Tracker	same intervention (delayed)	Physical activity	?	+	•	+	+	!
Maisiak, et al. 18	SLE	Telephone-based counseling	Usual care	Psycholo#gical status	?	?	+	+	?	!
Navarrete- Navarrete, et al.	SLE	Cognitive-behavioural intervention	Usual care	Stress reduction	?	?	-	?	?	-
Prado, et al. 20	SLE	Supervised aerobic training program	No intervention control AND healthy controls	Cardiorespiratory capacity	-	-	•	•	+	-
Ramsey- Goldman, et al.	SLE	Aerobic exercise group	ROM exercise group	Fatigue, functional status, lupus disease activity and prednisone dose, cardiovascular fitness, isometric strength, bone mineral density, bone biomechanical markers	?	?	+	-	?	-
Rimmer, et al. <sup>37</sup>	SLE	Personalized Online Weight and Exercise Response System (POWERS) and POWERplus	Recommendation to exercise from physician	Body weight	-	-	-	+	?	-
Tench, et al. 40	SLE	Graded exercise group, relaxation group	No intervention	Fatique	?	-	+	?	?	

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Author	Diagnosis	Experimental	Comparator	(primary) Outcome	Randomization pro	Deviations from intended intervent	Missing outcome d	Measurement of th outcome	Selection of the reported result	Overall
	-	•	•	<u> </u>						<u>ŏ</u>
Wu, et al. <sup>42</sup>	SLE	Physical activity counselling	Usual Care	Physical activity	+	+	+	+	?	!
Xie, et al. <sup>43</sup>	SLE	Transitional care (Omaha System)	Usual care	Self-care, quality of life	+	+	+	+	•	+
Filippetti, et al.	SSc	home-based minimally supervised exercise program	Usual Care	Function	?	+	+	+	?	!
Freedman, et al. <sup>23</sup>	SSc	Autogenic training	Finger temperature biofeedback, frontalis EMG biofeedback	Microcirculation	?	-	-	?	?	-
Gregory, et al.	SSc	Daily hand exercises with daily home wax bath hand treatment	Usual Care	Function	+	?	+	+	?	!
Khanna, et al. <sup>25</sup>	SSc	Internet-based self- management program	Educational book	Self-efficacy	?	+	+	+	+	!
Kristensen, et al. <sup>26</sup>	SSc	Self-administered paraffin bath and exercises	Lukewarm water prior to hand exercises	Function	+	?	+	+	?	!
Maddali-Bongi, et al. <sup>27</sup>	SSc	Manual lymph drainage	No intervention	reducing edema, functionality of the hands, quality of life and disability	+	?	-	+	?	-
Maddali-Bongi, et al. <sup>28</sup>	SSc	Combination of connective tissue massage and Mc Mennell joint manipulation	Home exercises	Hand function	?	+	+	?	+	!
Maddali-Bongi, et al. <sup>29</sup>	SSc	District specific and global rehabilitation program	No intervention	Patients' global health condition, specific body districts	?	-	+	?	+	
Maddali-Bongi, et al. <sup>30</sup>	SSc	Combination of Kabat's technique, connective massage and kinesitherapy	Home exercise program alone	Face functioning	?	+	+	?	?	!
Mitropoulos, et al. <sup>31</sup>	SSc	High-intensity interval training cycling (CE) and arm cranking (ACE)	No intervention	Microcirculation of the digital area	?	?	+	+	+	!

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**Missing outcome data** 

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Randomization process

Author	Diagnosis	Experimental	Comparator	(primary) Outcome	Randomization process	Deviations from intended interventions	Missing outcome data	Measurement of the outcome	Selection of the reported result	Overall
Mitropoulos, et al. <sup>32</sup> ; Mitropoulos, et al. <sup>33</sup>	SSc	High-intensity interval training (HIIT) combined with resistance training (RT)	No intervention	Microcirculation	+	+	+	+	+	+
Naylor, et al. <sup>34</sup>	SSc	Facial exercises	Facial grimacing	Mouth opening	?	•	-	-	?	•
Piga, et al. <sup>35</sup>	SSc	Telemonitoring approach to self-managed kinesiotherapy sessions	Kinesiotherapy without monitoring	Hand function	?	?	-	-	?	-
Rannou, et al. <sup>36</sup>	SSc	Physical therapy program	Usual care	Disability	+	+	+	+	+	+
Sandqvist, et al. 38	SSc	Paraffin bath in combination with hand exercises	Hand exercises only	Function	-	-	+	-	?	-
Schouffoer, et al. <sup>39</sup>	SSc	Multidisciplinary team care program	Usual care	Body function, functional ability, quality of live	?	•	+	?	?	-
Uras, et al. 41	SSc	Educational materials and a specific "face-to-face" interventions	Educational material	Mouth opening	+	+	+	+	+	+
Yuen, et al. <sup>44 45</sup>	SSc	Home orofacial exercise program	Usual Care	Mouth opening	?	?	+	+	?	!

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