

Supplementary Table Characteristics of studies included in the meta-analysis

Study,Year	Country of study	No. of subjects	Age (Mean $\pm$ SD)	Disease duration, y	Design	Presence of depressive	Proportion depressed	SLE criteria	Instruments: main outcomes
Parperis, K, et al 2021 <sup>34</sup>	USA	88	48.66 $\pm$ 12.43	13.29 $\pm$ 8.97	cross-sectional study	PHQ-9	36%	ACR/SLICC	SLEDAI:Disease activity VAS:Pain
Yilmaz-Oner, S, et al 2015 <sup>35</sup>	Turkey	113	40.6 $\pm$ 11.9	NR	cross-sectional study	HADS-D	47.20%	ACR	SF-36: Quality of life
Karol, D. E, et al 2013 <sup>29</sup>	USA	127	38.1 $\pm$ 12.3	NR	cross-sectional study	DSM-IV	41.70%	ACR	SLEDAI:Disease activity VAS:Pain
Nery, F. G, et al 2007 <sup>14</sup>	Brazil	71	34.04 $\pm$ 9.29	9.63 $\pm$ 6.51	cross-sectional study	DSM-IV	22.50%	ACR	SLEDAI:Disease activity HAQ:Functional disability
Shen, B, et al 2013 <sup>15</sup>	China	158	33.2 $\pm$ 10.25	NR	cross-sectional study	SDS	32.90%	1997ACR	SLEDAI:Disease activity SF-36:Quality of life

Dietz, B, et al 2021 <sup>30</sup>	USA	326	45 ± 14	16 ± 10	cross-sectional study	PHQ-8	25%	ACR	SLEDAI:Disease activity SF-36:Quality of life
A, Hala, et al 2015 <sup>21</sup>	Egypt	50	27.9 ± 6.28	5.5 ± 4.5	cross-sectional study	BDS	64%	ACR	SLEDAI:Disease activity HAQ:Functional disability
Khedr, Eman M, et al 2021 <sup>31</sup>	Egypt	32	34.8 ± 10.06	6.34 ± 4.5	cross-sectional study	BDI	46.90%	ACR	SLEDAI:Disease activity SF-36:Quality of life
Chalhoub, N.E, et al 2022 <sup>28</sup>	USA	99	46.4 ± 12.1	10.6 ± 6.8	cross-sectional study	BDI	31.3%	ACR	SLEDAI:Disease activity SF-36:Quality of life VAS:Pain
Xie, X, et al 2016 <sup>37</sup>	China	352	31.70 ± 11.91	4.79 ± 4.59	cross-sectional study	HADS-D	23.30%	ACR	SLEDAI:Disease activity VAS:Pain
Choi S, T, et al 2012 <sup>36</sup>	Korea	108	37.4 ± 11.1	7.2 ± 5.9	cross-sectional study	CES-D	60.19%	ACR	SLEDAI:Disease activity

Maneeton B,et al 2013 <sup>33</sup>	Thailand	62	31.8±9.0	6.14±4.82	cross-sectional study	HADS-D	45.17%	ACR	SLEDAI:Disease activity
Liao, J, et al 2022 <sup>32</sup>	China	325	44.51± 11.89	NR	cross-sectional study	PHQ-9	61.54%	SLICC	SLEDAI:Disease activity

Note: DSM-IV, Diagnostic and Statistical Manual of Mental Disorders-IV; HADS-D:Hospital Anxiety and Depression Scale-Depression;; USA:United States of America;SDS: Self-rating Depression Scale; PHQ: patient health questionnaire; BDS: Beck Depression Score; BDI: Beck Depression Inventory; ACR, the American College of Rheumatology; VAS, visual analog scale; SLEDAI: SLE disease activity index; HAQ: Health Assessment Questionnaire; SF-36: the Medical Outcomes Study Short Form-36;CES-D: centre for epidemiologic studies depression scale; NR: Not Reported.