Supplementary Material

Table i. Characteristics of included studies.

Study	Design	Quality of evidence	Sample size (sex); mean age, yrs (SD)	Brace type (prescribed duration per day, hrs)	Predictors for curve regression: OR, p-value	Exercise type	Reported compliance	Clinical outcomes
Study using very rigid brace[1]								
Donzelli et al,[2] 2018	Case-control study	Moderate	168 (63 M, 105 F); inconsistent group: 13.7 (1.8), consistent group: 12.9 (1.9)	Sforzesco brace (18-23)	Consistent daily pattern compliance; OR 1.96, p = 0.0053 Pre-brace Cobb angle <35º; OR N/A, p = 0.0001	N/A	N/A	Curve regression in 79 (47.0%) patients; Curve stabilization in 74 (44.0%) patients; Curve progression in 15 (8.9%) patients.
Studies using rigid brace[1]								
Xu et al,[3] 2019	Retrospective cohort study	Low	90 (14 M, 76 F); 12.6 (1.3)	Boston brace (22)	N/A	N/A	At least 90% of prescribed dosage	Curve regression in 34 (37.8%) patients; Curve stabilization in 12 (13.3%) patients; Curve

								progression in 44 (48.9%) patients.
Cheung et al,[4] 2020	Retrospective cohort study	Moderate	586 (79 M, 507 F); 12.6 (1.2)	Boston brace (20)	In-brace correction rate; OR 1.03, p < 0.01 Change in apical ratio; OR 0.84, p < 0.01	N/A	N/A	Curve regression in 98 (16.7%) patients; Curve stabilization in 254 (43.3%) patients; Curve progression in 234 (39.9%) patients.
Yang et al,[5] 2014	Prospective cohort study	Very low	16 (3 M, 13 F); 12.8 (2.08)	Boston brace (23)	N/A	N/A	N/A	Curve regression in 16 (100%) patients; Curve stabilization in 0 (0%) patients; Curve progression in 0 (0%) patients.
Zaina et al,[6] 2017	Retrospective cohort study	Low	351 (45 M, 306 F); 12.9 (1.4)	SPoRT brace (18-23)	N/A	Physiotherapeutic scoliosis-specific exercise	Average 94% of prescribed dosage	Normal weight group: Curve regression in 52% of patients; Curve stabilization in 41% of patients; Curve progression in 7% of patients. Overweight group: Curve regression in 44% of patients; Curve stabilization 52% of patients; Curve

								progression in 3% of patients.
Zhang et al,[7] 2023	Prospective cohort study	Low	77 (9 M, 68 F); 12.7 (1.46)	Modified Gensingen brace (20)	N/A	Physiotherapeutic scoliosis-specific exercises	At least 20 hrs per day	Curve regression in 50 (64.9%) patients; Curve stabilization in 23 (29.9%) patients; Curve progression in 4 (5.2%) patients.
Pasquini et al,[8] 2016	Retrospective cohort study	Low	67 (11 M, 56 F); 13.15 (1.7)	"P" Chêneau brace (22)	N/A	N/A	At least 22 hrs per day	Curve regression in 20 (29.9%) patients; Curve stabilization in 42 (62.7%) patients; Curve progression in 5 (7.5%) patients.
Zhu et al,[9] 2017	Retrospective cohort study	Low	54 (9 M, 45 F); 13.7 (1.8)	Boston brace / Milwaukee brace (22)	N/A	N/A	At least 75% of prescribed dosage	Curve regression in 7 (13.0%) patients; Curve stabilization in 12 (22.2%) patients; Curve progression in 35 (64.8%) patients.
Upadhyay et al,[10] 1995	Prospective cohort study	Low	85 (0 M, 85 F); 13	Thoracolumbosacral orthosis /Milwaukee brace (23)	N/A	N/A	N/A	Curve regression in 58 (68.2%) patients; Curve stabilization in 13 (15.3%) patients; Curve progression in 14 (16.5%) patients.

Studies using braces of different rigidity[1]								
Negrini et al,[11] 2009	Retrospective cohort study from a prospective database	Low	46 (3 M, 43 F);12.8 (1.5)	SpineCor brace/Sibilla-Cheneau brace/Sforzesco brace (18-23)	N/A	Personalized exercise for each patient aiming at improve mobilization and brace correction	90% of patients reported compliance of more than 80%	Curve regression in 18 (39.1%) patients; Curve stabilization in 26 (56.5%) patients; Curve progression in 2 (4.3%) patients.
Negrini et al,[12] 2011	Retrospective cohort study	Low	28 (4 M, 24 F); 14.2 (1.8)	Lyon brace (23 in the first six months, reduce two for every six months) / Sforzesco brace (23 in the first six months, 22 in the following six months reduce two for every six months)	N/A	Scientific exercise approach to scoliosis	96% of patients reported compliance of more than 80%	Curve regression in 20 (71.4%) patients; Curve stabilization in 7 (25%) patients; Curve progression in 1 (3.6%) patients.

F, female; M, male; N/A, not applicable; OR, odds ratio; SD, standard deviation.

References

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