| **Author, Year, Country**  **Groups, N Enrollment/**  **N Final** | **Age at Intake**  **Mean months±SD** | **Measure** | **Baseline Score, Mean±SD** | **Follow-Up Score, Mean±SD** | **Analytic Data** |
| --- | --- | --- | --- | --- | --- |
| **RCTs** | | | | | |
| Strain et al. 201120  US  **IG**: LEAP program with coaching and training, 28 classrooms (27 analyzed)/ 177 children  **CG**: LEAP intervention manuals only, 28 classrooms (23 analyzed)/ 117 children  Quality: Fair | **IG:** 50.1 ± 4.6  **CG:** 50.7 ± 4.2 | CARS | **IG:** 39.0 ± 6.2  **CG:** 37.4 ± 5.9 | **IG:** 32.9 ± 3.9  **CG:** 34.6 ± 4.2 | Children in IG showed an average  reduction in severity of 6.1 points as compared with an average reduction of 2.8 points for CG class children, P<0.05; ES=0.59 |
| Dawson et al. 20121, 2  US  **IG:** ESDM, 24/24  **CG:** Eclectic therapy, 24/21  Quality: Good | **IG:** 23.9 ± 4.0  **CG:** 23.1 ± 3.9 | ADOS | **G1:** 7.2 ± 1.7  **G2:** 6.9 ± 1.7 | **G1:** 7.0 ± 1.9  **G2:** 7.3 ± 1.8 | No group difference in ADOS severity scores.  Group X Time (Baseline vs. 2 year): F=3.29, *P* = 0.422 |
| **Non-randomized trials** | | | | | |
| Peters-Scheffer et al. 20135  Netherlands  **IG:** Low intensity Lovaas-based intervention+ specialized preschool, 20/20  **CG:** Eclectic therapy, 20/20  Quality: Good | **IG+CG:** 62.52 ± 16.96 (median) | ADOS-total score | **IG:** 17.00 ± 3.28 **CG:** 15.45 ± 2.72 | **IG:** 12.05 ± 5.41  **CG:** 15.15 ± 4.26 | Fewer autistic symptoms observed in IG than CG at follow up  Effect size: autism severity  ADOS: Cohen’s d = 1.51  CARS: Cohen’s d = 1.50 |
| CARS-total score | **IG:** 43.84 ± 4.30  **CG:** 40.79 ± 6.20 | **IG:** 34.89 ± 3.62  **CG:** 39.95 ± 4.62 |
| Peters-Scheffer et al. 20106  Netherlands  **IG:** Specialized preschool +UCLA/ Lovaas-based intervention, 12/12  **CG:** Eclectic therapy, 22/22  Quality: Fair | **IG:** 53.5 ± 5.52  **CG:** 52.95 ± 11.14 | PDD-MRS | **IG:** 11.58 ± 4.42  **CG:** 12.91 ± 3.79 | **IG:** 10.25 ± 3.14  **CG:** 11.27 ± 3.84 | No significant group differences on symptom severity at pre-treatment, t (20) = 0.88, p = .39, and post-treatment, t (27) = 0.84, p = .41.  Decrease of symptom severity over time in both groups, F (1,32) = 6.22, p = .02 |
| Reed et al. 20079  UK  **IG:** High intensity intervention, 14/14  **IGa:** High intensity with focus on Lovaas techniques, 4/4  **IGb:** High intensity with focus on verbal behavior, 5/5  **IGc:** High intensity with focus on CABAS methods, 5/5  **CG:** Low intensity intervention in home-based direct teaching sessions, 13/13  Quality: Fair | **IG:** 42.9 (14.8)  **IGa:** 47.5 (13.5)  **IGb:** 38.0 (9.9)  **IGc:** 44.2 (20.5)  **CG**: 40.8 (5.6) | GARS Autism Quotient | **IG:** 89.1 ± 14.7  **IGa:** 93.0 ± 19.9  **IGb:** 87.6 ± 11.1  **IGc:** 87.4 ± 16.1  **CG:** 95.1 ± 11.6 | Mean change ± SD:  **IG:** -2.2 ± 7.8  **CG:** 1.6 ± 6.2 | No significant difference between the groups, t (25)=1.41, p>0.10 |
| **Prospective cohort studies** | | | | | |
| Boyd et al. 201321  US  **IG1:** TEACCH preschools, 85/81  **IG2:** LEAP preschools, 54/48  **CG:** Non-model specific preschools, 59/56  Quality: Fair | **IG1:** 48 ± 6.84  **IG2:** 47.52 ± 8.4  **CG:** 48.84 ± 7.68 | Autism characteristics and severity (ACS) | **IG1:** -0.11 ± 0.76  **IG2:** 0.066 ± 0.765  **CG:** 0.381 ± 0.859 | **IG1:** -0.299 ± 0.928  **IG2:** -0.144 ± 0.837  **CG:** 0.124 ± 0.866 | Significant baseline group differences (p=0.0013)  All groups showed significant change from baseline (p<0.05) but there is no between group differences in severity |
| Zachor et al. 200722 Israel  **IG:** UCLA/Lovaas-based intervention, 53/53  **CG:** Eclectic therapy, 15/15  Quality: Fair | **IG:** 25.1 ± 3.8  **CG:** 26.3 ± 4.6 | ADOS-  Language & communication | **IG:** 13.8 ± 4.3  **CG:** 11.8 ± 4.3 | **IG:** 7.2 ± 4.1  **CG:** 9.7 ± 3.0 | No significant difference between the groups at pre-intervention time in ADOS scores (F (2,36) = 1.05, p = .359, ɳ2 = .055)  Significant group differences for language & communication subscale, F (2,38)=9.59, p<0.01, ɳ2=0.206  No significant group differences for reciprocal social interaction, F (2,38)=3.39, ɳ2=0.074 |
| Reciprocal social interaction | **IG:** 17.9 ± 6.2  **CG:** 16.3 ± 5.2 | **IG:** 11.1 ± 6.7  **CG:** 13.3 ± 4.8 |
| Howard et al. 200517  US  **IG:** UCLA/Lovaas-based intervention, 37/29  **CG1:** Intensive eclectic therapy  **CG2:** Non-intensive eclectic therapy  **CG2+CG3:** 41/32  Quality: Fair | **IG:** 30.86 ± 5.16  **CG1:** 37.44 ± 5.68  **CG2:** 34.56 ± 6.53 | Number of DSM-IV criteria | **IG:** 7.55 ± 1.39  **CG1:** 7.27 ± 1.56 **CG2:** 7.33 ± 2.02 | NR | IG vs CG1/CG2: mean difference=0.25, p=ns  CG1 vs. CG2 , mean difference= -0.06, p=ns |
| **Retrospective cohort studies** | | | | | |
| Flanagan et al. 201218, 19  Canada  **IG:** Intensive behavioral intervention, 61/61  **CG:** Eclectic therapy 61/61  Quality: Fair | **IG:** 42.93 ± 11.53  **CG:** 42.79 ± 10.51 | CARS | **IG:** 32.83 ± 3.99  **CG:** 32.62 ± 3.74 | **IG:** 30.20 ± 4.97  **CG:** 32.57 ± 5.55 | No baseline group difference in CARS (total score), t=-0.29, p=0.77  Significant group difference at time 2:  F=4.64, p=0.033, d=0.53 |

ACS=Autism Characteristics and Severity; ADOS=Autism Diagnostic Observation Schedule ; CARS=Childhood Autism Rating Scale; CG=Control Group; ESDM= Early Start Denver Model; GARS=Gilliam Autism Rating Scale; IG=Intervention Group; LEAP=Learning Experiences and Alternate Program for preschoolers and their parents; SD=Standard Deviation.