

Table 2: Summary of quality scores, participants, settings, interventions, comparisons and outcomes in included studies

Study/quality score	Participants	Setting(s)	Intervention(s)	Comparison(s)	Outcome(s)
Systematic reviews/guidelines (level I)					
(Parr 2007) BMJ Clinical Evidence Report ++	Children or adolescents with autism or ASD (PDD NOS and AS excluded)	Not reported	All treatments assessed. Separate results for: ▪ ABA (EIBI or Lovaas therapy) ▪ Autism Preschool Program ▪ PECS	n/a	Not specified
(Scottish Intercollegiate Guidelines Network 2007) ++	Children and adolescents up to age 16 years	Not reported	All treatments assessed. Separate results for: ▪ EIBI	n/a	'Normal functioning' Autistic symptoms not specified
(Roberts and Prior 2006) +	Children with ASD (age limits not reported)	Not reported	All treatments assessed. Separate results for: ▪ Behavioural intervention	n/a	Not specified
(Burrows 2004) -	Children with autism	Not reported	Educational treatments. Separate results for: ▪ Lovaas treatment	n/a	Global improvement (specific areas of functioning excluded)
(Doughty 2004) +	Young children with ASD	Not reported	Behavioural and skill based treatments. Separate results for: ▪ ABA treatment	n/a	Not specified
(Finch and Raffaele 2003) ++	Children under 8 years with a diagnosis of autism or PDD	Not reported	EIBI	n/a	IQ Class placement Social and adaptive functioning
(Chorpita et al. 2002) +	Children with a variety of psychiatric conditions (anxiety, ADHD, etc). Results reported separately for children with ASD	Not reported	All treatments assessed. Separate results for: ▪ FCT/ABA ▪ DTT	n/a	Overall functioning Focal improvement
(Ludwig and Harstall 2001) +	Children with ASD	Not reported	EIBI	n/a	Not specified
(McGahan 2001) +	Preschool children with autism or PDD	Not reported	Behavioural treatment	n/a	Not specified
(Bassett et al. 2000) ++	Preschool children with autism	Not reported	EIBI	n/a	Not specified

Study/quality score	Participants	Setting(s)	Intervention(s)	Comparison(s)	Outcome(s)
Randomised controlled trials (level II)					
(Howlin et al. 2007) +	Elementary school children (aged 4 to 11 years) with autism or ASD	Specialist classes or schools	1. PECS (immediate treatment) 2. PECS (delayed treatment)	No PECS treatment (standard care within classes)	Communication skills Language
(Kasari et al. 2006) +	Children with autism between 3 and 4 years of age	University clinic	1. EIBI with treatments aimed at joint attention 2. EIBI with treatments aimed at symbolic play	EIBI	Language Non verbal communication Structured play
(Yoder and Stone 2006b) (Yoder and Stone 2006a) ++	Children with autism or PDD NOS between 18 and 60 months of age	University clinic	PECS	Responsive Education and Prelinguistic Milieu Teaching (RPMT)	Communication skills Play Turn taking
(Sallows and Graupner 2005) +	Children with autism between 24 and 42 months of age	University clinic	Clinic directed EIBI	Parent directed EIBI (less supervision than clinic EIBI)	IQ Non verbal IQ Language Adaptive functioning Academic achievement Social functioning Behaviour Classroom placement
(Drew et al. 2002) -	Children with autism aged less than 2 years	Hospital clinic and local services	Psycholinguistic and social pragmatic approach using advice on behavioural management	Eclectic treatment (mixture of standard care including speech and language therapy, physiotherapy, home worker input and ABA)	Non verbal IQ Communication skills/social interaction Behaviour Parent stress
(Moore and Calvert 2000) -	Children with autism between 3 and 6 years of age	School	Behavioural programme	Behavioural programme + educational software programme	Learning nouns Attention to task Motivation to continue in programme
(Smith et al. 2000) +	Children with autism or PDD NOS aged between 18 and 42 months	University clinic	High-intensity clinic directed EIBI	Low intensity parent directed EIBI	Intellectual functioning Language Adaptive functioning Socioemotional functioning Academic achievement Class placement 'Progress' Parent satisfaction
(Jocelyn et al. 1998) +	Preschool children with autism or PDD aged between 24 and 72 months	Community based day care centre	Autism Preschool Program (APP)	Eclectic care (usual standard care with input from Family Services workers)	Knowledge of autism Autism symptomatology Developmental measures Family stress and satisfaction

Study/quality score	Participants	Setting(s)	Intervention(s)	Comparison(s)	Outcome(s)
Systematic reviews of SCEDs and/or group studies with concurrent controls (level III-1)					
(Bellini and Akullian 2007) ++	Children with ASD aged between 3 and 21 years	Not reported	Video (self) modelling	n/a	Communication skills/social interaction Behavioural functioning Functional skills
(Bellini et al. 2007) +	Children and adolescents with ASD	School	Social skills interventions	n/a	Social skills
(Delano 2007) +	People with ASD	Not reported	Video modelling	n/a	Communication skills/social behaviour Functional living skills Answering perspective-taking questions Challenging behaviour
(Machalicek et al. 2007) -	Children and adolescents with ASD aged between 3 and 21 years of age	Not reported	Behavioural interventions	n/a	Challenging behaviour
(Mancil 2006) +	Studies with at least 1 participant a child with ASD	Not reported	Functional communication training (FCT)	n/a	Communication skills Challenging behaviour
(Matson et al. 2007) -	Children with ASD aged 12 years of age or younger	Not reported	Social skills interventions	n/a	Social skills
(Ayres and Langone 2005) +	Children with autism (ranging from preschool to 20 years)	Not reported	Video based instruction	n/a	Social/communication skills Functional skills
(Campbell 2003) ++	People with autistic disorder	Not reported	Behavioural interventions	n/a	Problem behaviour
(Horner et al. 2002) +	Children with autism aged less than 8 years old	Not reported	Behavioural interventions	n/a	Problem behaviour
(McConnell 2002) +	Children with autism	Not reported	Social skills interventions	n/a	Social skills
(Smith 1999) +	Children with autism	Not reported	Multiple treatments. Separate results for: ▪ ABA	n/a	Not specified
Quasi experimental study (level III-1)					
(Kroeger et al. 2007) -	Children with autism aged between 4 and 6 years	Clinic/university setting	Video modelling by direct teaching	Behavioural intervention focussing on unstructured play	Social skills Play

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Non randomised experimental and cohort studies (level III-2)					
(Carr and Felce 2007) -	Children with autism aged between 3 and 7 years	Classroom	PECS + eclectic intervention	Eclectic intervention only	Communication skills
(Eikeseth et al. 2002) (Eikeseth et al. 2007) +	Children with autism aged between 4 and 7 years	Kindergarten and school classrooms	EIBI	Eclectic intervention (mixture of approaches)	Intellectual functioning Visual spatial skills Language Adaptive functioning
(Magiati et al. 2007) +	Children with ASD aged between 22 and 54 months	EIBI based at home and Eclectic intervention based at school	Home based EIBI	Eclectic intervention (mixture of approaches)	Cognitive skills Adaptive behaviour Language Play Autism severity
(Reed et al. 2007) -	Children with autism aged between 2 years 6 months and 4 years	Home based	Home based EIBI	Home based low intensity behavioural treatment	Behavioural functioning Communication/social interaction Cognitive skills Adaptive functioning Developmental functioning
(Remington et al. 2007) -	Preschool children with autism aged between 30 and 42 months	EIBI was home based; usual care was offered from the community and both groups accessed publicly funded facilities	Home based EIBI	Eclectic care (usual standard treatment offered by statutory services)	Non verbal communication Intellectual functioning Language Adaptive skills Behavioural functioning Parent measures
(Zachor et al. 2007) -	Children with autism or PDD NOS aged less than 3 years	Programmes were based in 2 different centres	EIBI (centre based)	Eclectic developmental intervention (based on a mixture of approaches)	Language and communication Social interaction
(Cohen et al. 2006) -	Children with ASD or PDD NOS aged between 18 and 42 months	Dependent on the age of the child. EIBI initially mostly at home with a few hours at preschool – as the child aged, the balance between these 2 changed. Settings varied in the control group but mostly was based at school	EIBI (home based with a mixture of therapists and parents)	Eclectic intervention	IQ Non verbal IQ Language Adaptive behaviour Classroom placement

Study	Participants	Setting(s)	Intervention(s)	Comparison(s)	Outcome(s)
Non randomised experimental and cohort studies (level III-2) <i>continued</i>					
(Eldevik et al. 2006) -	Children with autism and mental retardation aged less than 6 years	Kindergarten or elementary school classrooms	Minimal intensity EIBI (one to one)	Minimal intensity eclectic intervention (one to one)	Intellectual functioning Language Adaptive behaviour Non verbal intelligence 'Pathology' data (assessment of a variety of symptoms and behaviours)
(Wetherby and Woods 2006) -	Children with autistic disorder or PDD NOS aged less than 2 years	Home based for the intervention group together with parent-child play groups	Early Social Interaction project (ESI) (incorporating the NRC recommendations) – implemented by parents	No treatment (this group was only measured at baseline and compared directly with the intervention group both before and after they had received ESI treatment)	Communication skills and symbolic behaviour
(Howard et al. 2005) -	Children with ASD or PDD NOS aged less than 4 years	EIBI based in multiple settings (home, school and community). Control groups based in classrooms	EIBI (delivered by both therapists and parents)	1. Intensive eclectic intervention (combination of methods) 2. Non intensive eclectic intervention (combination of methods)	Cognitive skills Non verbal skills Language Adaptive skills
(Sheinkopf and Siegel 1998) -	Preschool children with autism or PDD NOS	EIBI was based at home. Control comparison was based in the classroom	Home directed EIBI	Eclectic intervention (standard school based interventions)	Cognitive skills Behavioural functioning (frequency and severity of autistic behavioural symptoms)