



PACT evidence based intervention for autistic children

Dr. Catherine Aldred

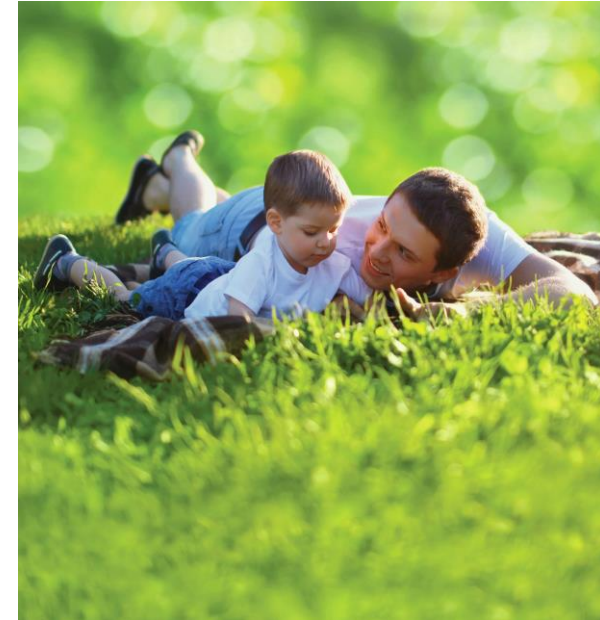
Division of Neuroscience & Experimental Psychology, University of Manchester





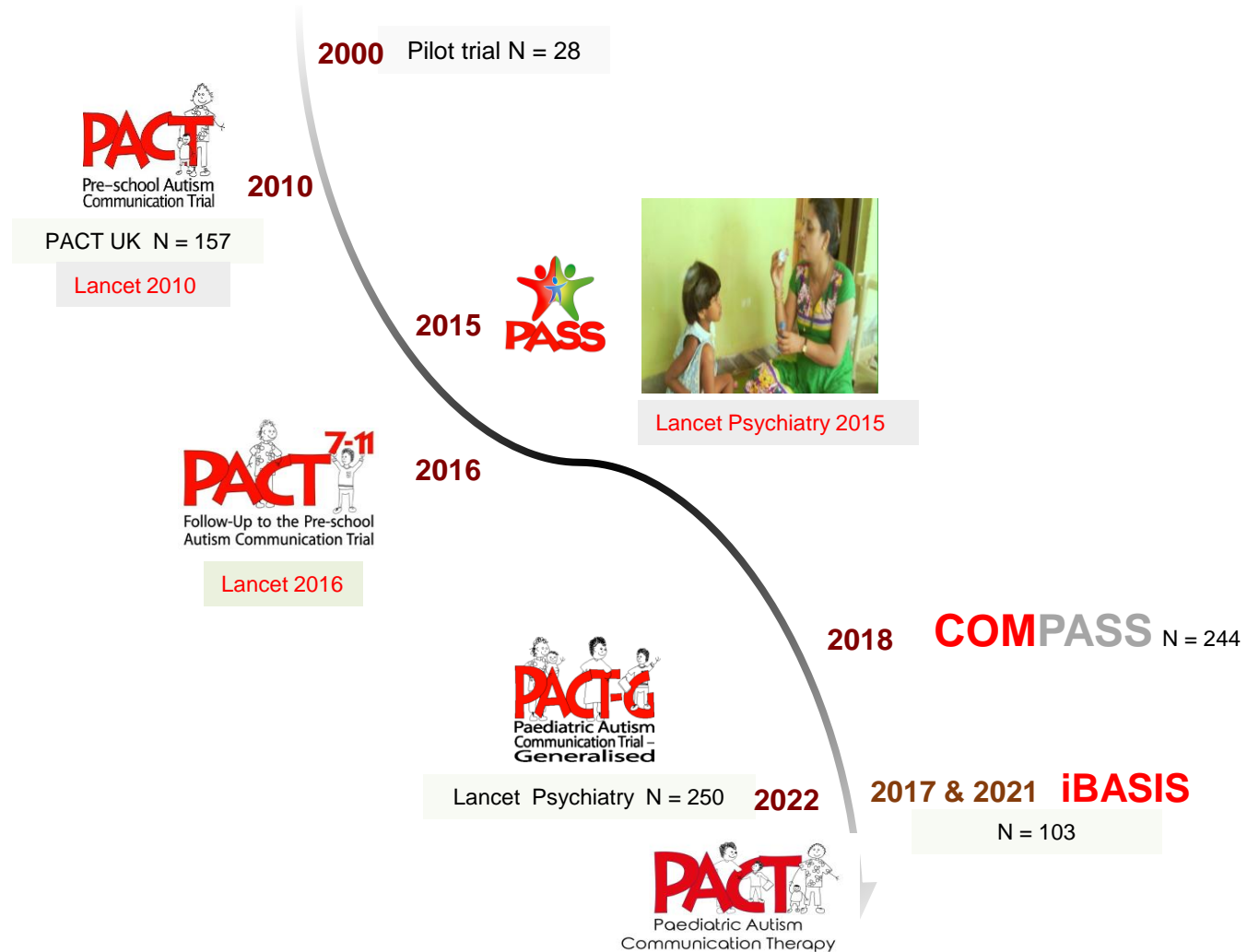
PACT - *A paradigm shift from behavioural to developmentally informed intervention*

- Intervention science 2000-2022
- Theoretical and empirical background
- Developmentally informed
- Relational approach
- Measurable individual profile/specification
- Enhances individual attributes
- Manual and training to fidelity
- Optimal case management (adapted to online delivery)
- Early intervention & prevention of distress behaviours

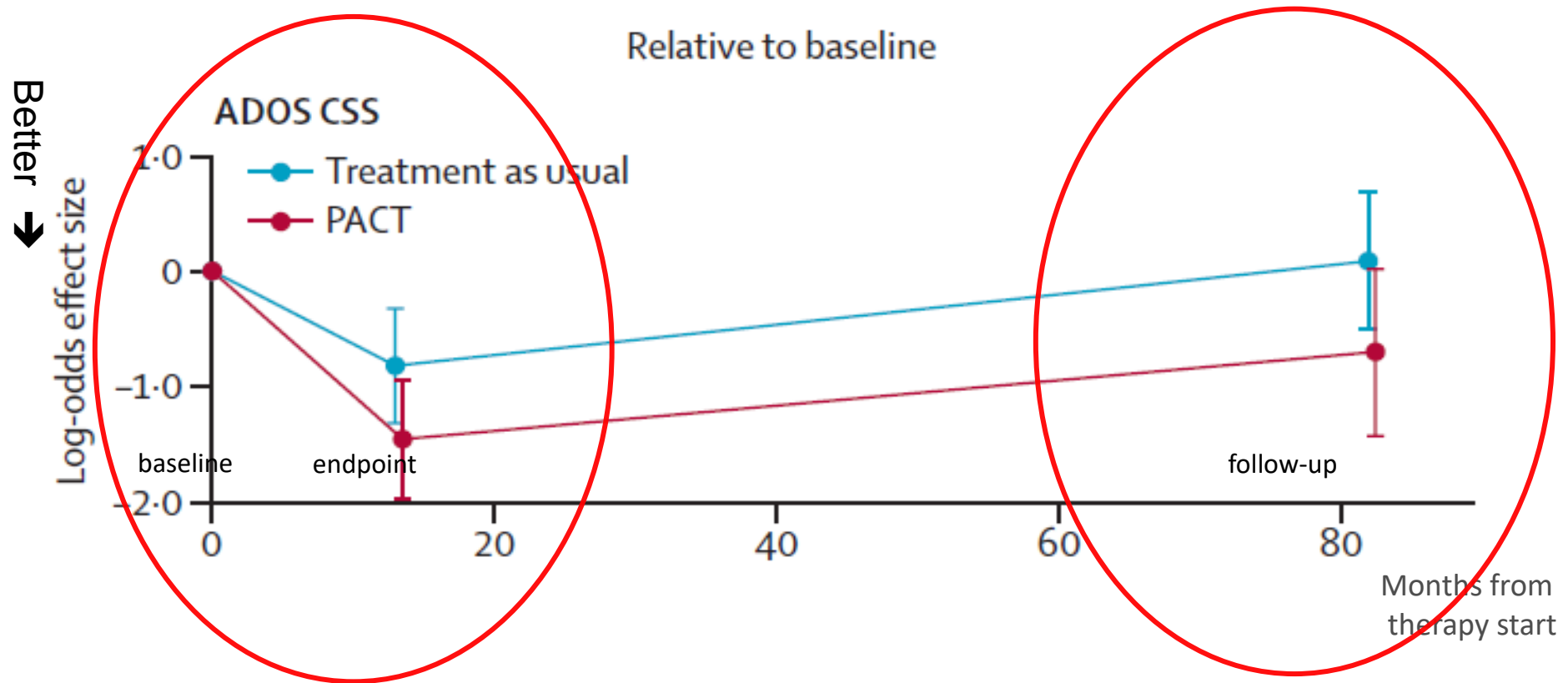




PACT over 20 years successive research

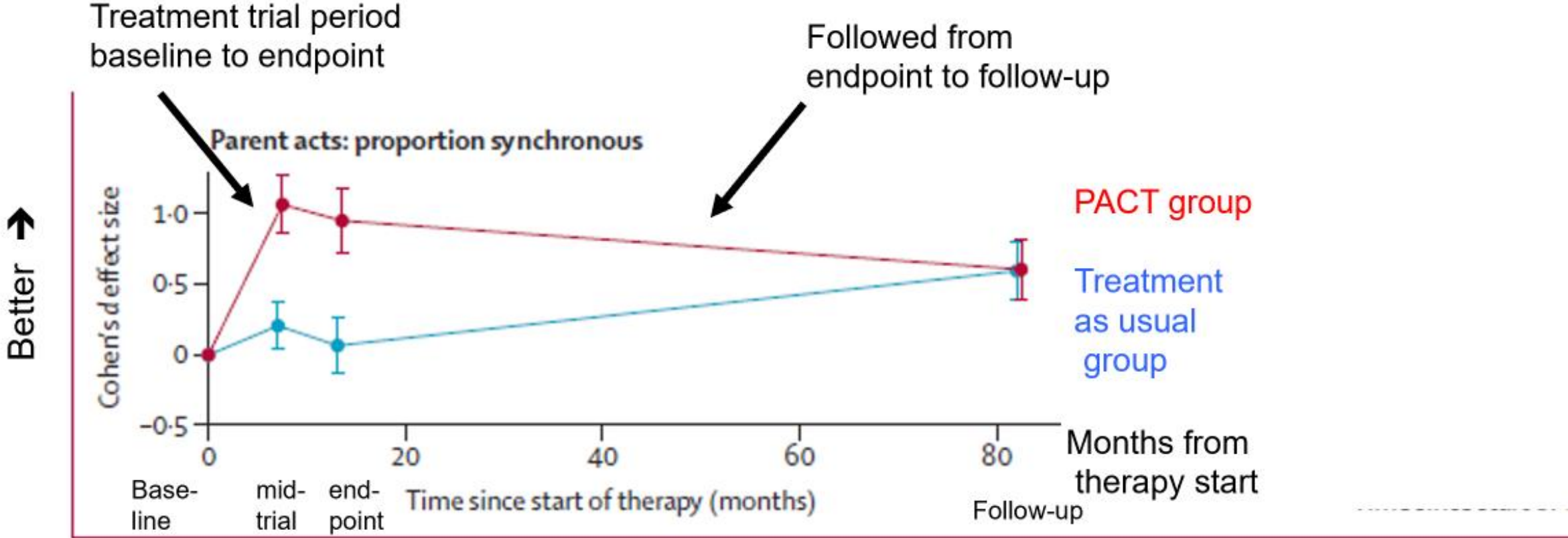


PACT trial time path of autism symptom severity



Parent *and* teacher outcome ratings support the blinded findings

Effect of Therapy on Parent Behaviour



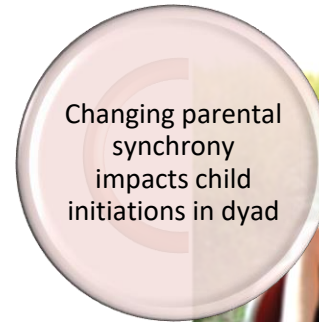
PACT Mediation analysis
(Pickles et al 2015) analyses
the mechanism of change



Parent and
therapist
interaction
changes parent
behaviour

Parental synchrony
change
**70% increase in parent
synchrony mediated
change in child
communication**

Child communication
change
**73% increase in child
communication mediated
change in child autism
symptoms on ADOS**



Changing parental
synchrony
impacts child
initiations in dyad



Changing
initiations by
child affects
interaction with
another person
in ADOS

Long-term change—
**resulted in 6 year
sustained increase
in child social
communication
functioning**

Summary

The first intervention to show impact to improve autism symptoms, adaptive function and family functioning sustained 6 yrs after treatment end

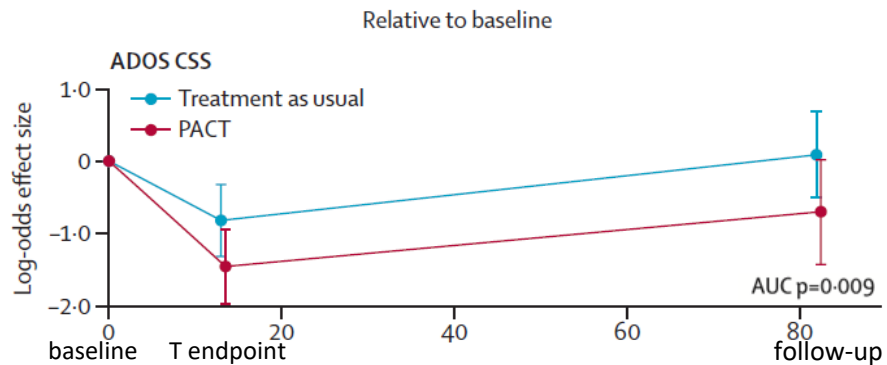
UK NIHR 'Signal' study for high quality design and relevance to decision makers

NICE Guideline 170 (2013) consider recommendation;

UK National ASD curriculum recommendation

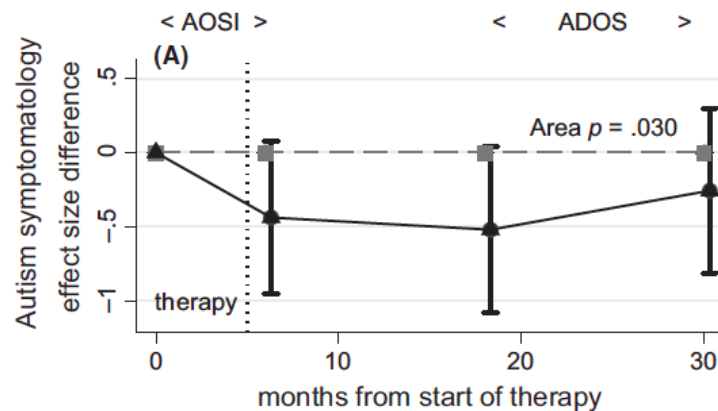
Early support within context of Case Management and treatment of co-occurring conditions/problems.

Comparative effects of PMI on **symptom outcome** across development and samples

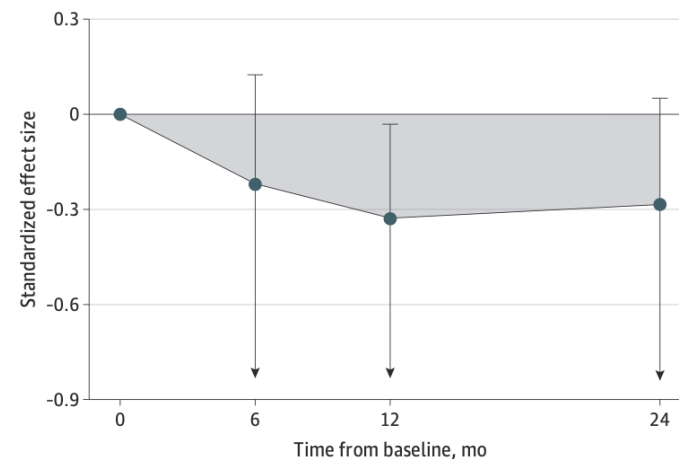


Pickles et al (2016)
PACT - N=152 – post diagnosis pre-school, FU to 10.5 yrs

Green et al (2017)
iBASIS-VIPP - N=54 – selected sample from 9 months, FU to 3 years



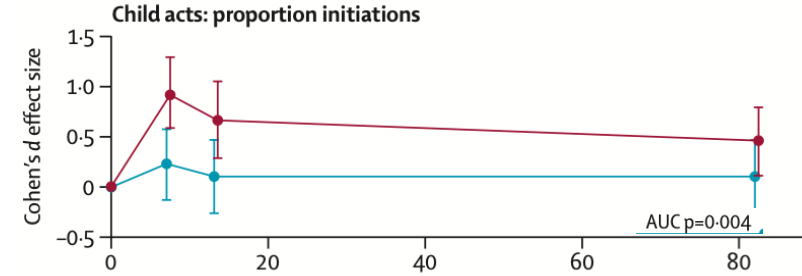
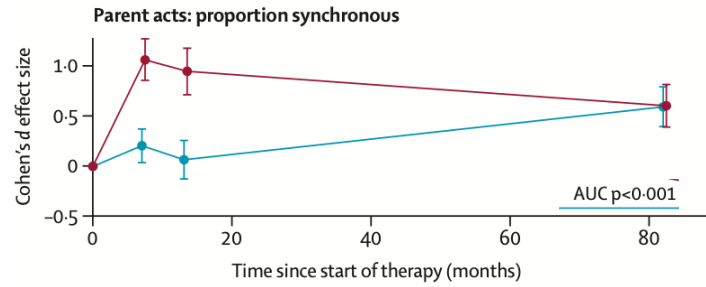
Whitehouse et al (2021)
iBASIS-VIPP - N=103 – indicated sample from 12 months, FU to 3 years



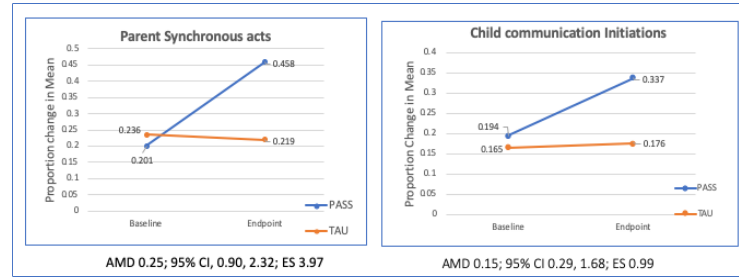
Area p=0.04

Comparative effects of PMI on *dyad interaction* across development and samples

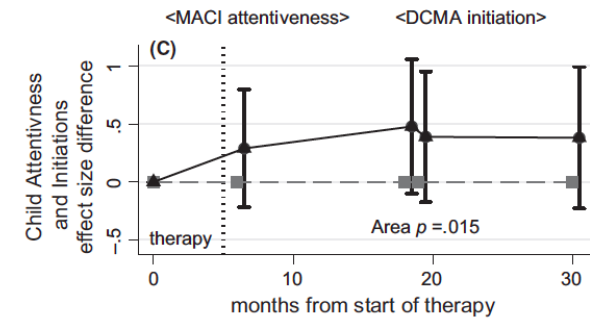
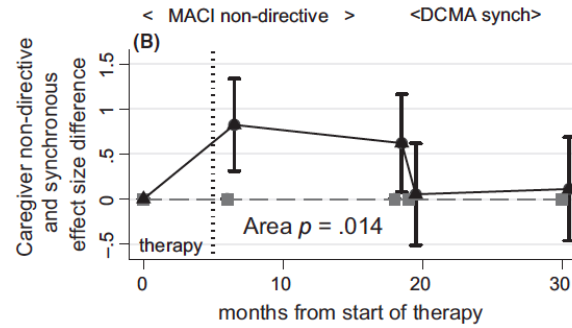
Pickles et al (2016)
PACT 2-5yrs



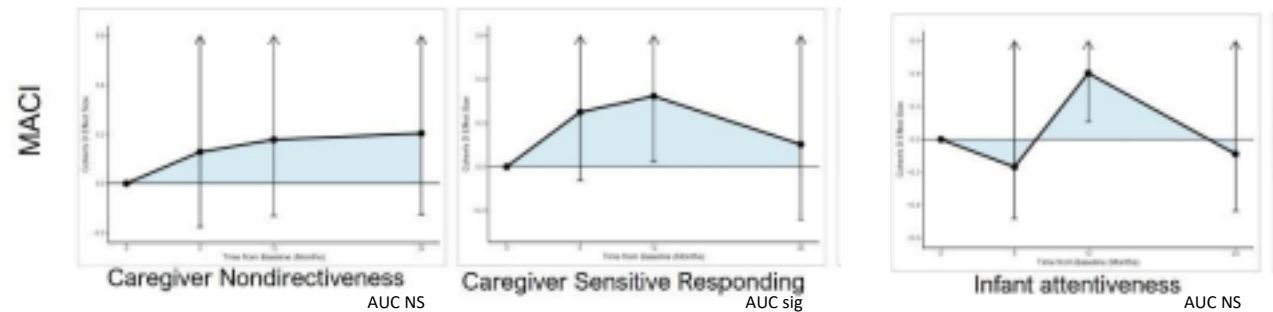
Rahman et al (2016)
PASS (PACT, S Asia) 2-11yrs



Green et al (2017)
iBASIS-VIPP 9-14 months



Whitehouse et al (2021)
iBASIS-VIPP 12-15 months



Implications of reduction in clinical diagnosis (Whitehouse et al)

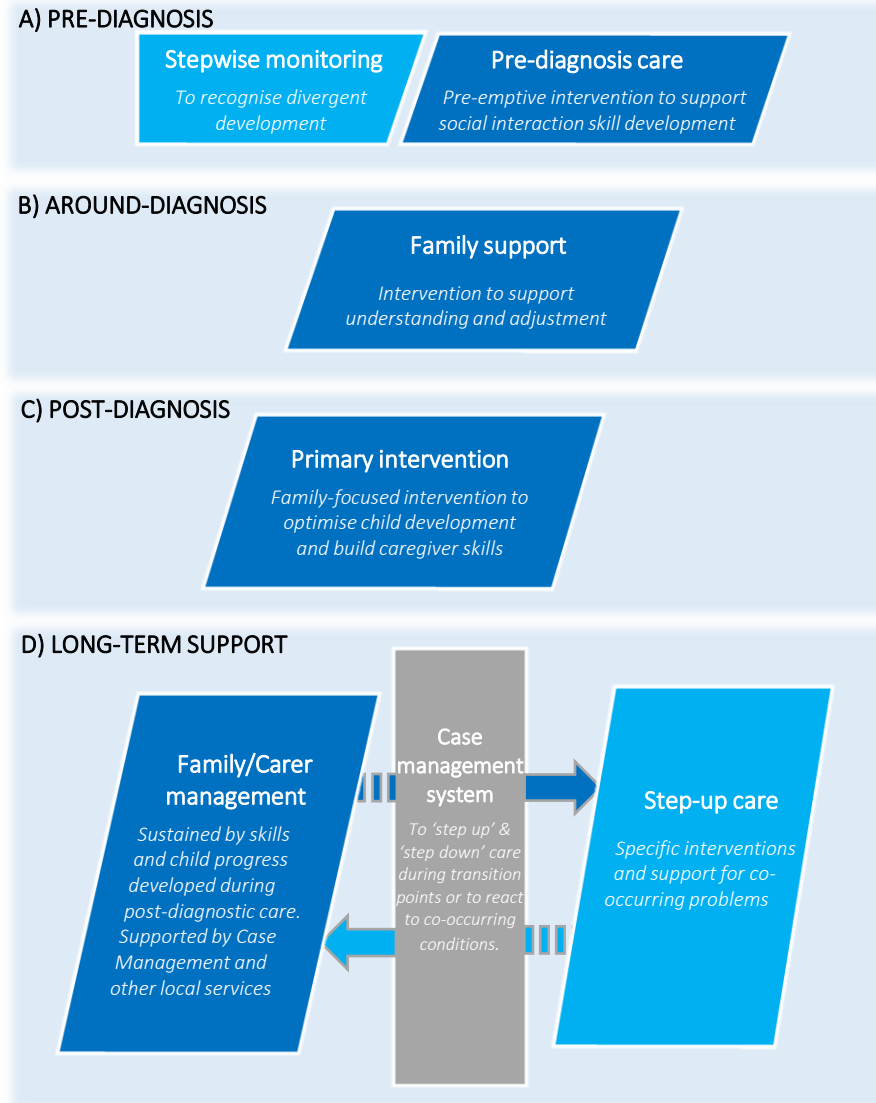
- *First pre-emption to phenotypic reduction in autism*
 - Needs replication and follow-up....
- *Developmental science implications*
 - The phenotype is to some extent malleable as well as emergent
 - An outcome of early transaction between neurodiverse brain/mind and social environment (the theoretical foundation of the intervention)
- *Significant public health implications internationally*
- *Concerns from some in autism community and parents*
 - Impact on access to services through diagnosis
 - Impact on autism identity
 - *This is not a behavior modification intervention, normalizing autistic behaviours*
 - *It is a transactional intervention focus on honoring diversity and maximizing adaptation to it....the positive outcomes are consequent to this*

Intervention criteria

- Treatment effects (PACT/PASS) not effected by social economic, education, culture, ethnicity
- Intervention adapted for parents on autistic spectrum
- No trial evidence of adverse effects
- Efficient, accessible and adapted for online teleconference delivery
- Proven feasible for delivered in health and education settings
- Qualitative studies of patient experience (Leadbitter et al 2020)
 - Lightbulb moments of child recognition and relatedness
 - Pressure of time on occasion

Health system innovation - Integrated care pathway

A developmentally-phased pathway young autistic children



- Improving child function
- Family Resilience
- Maximising adaption
- Step up care as needed

A developmentally-phased pathway young autistic children

A) PRE-DIAGNOSIS

Stepwise monitoring
To recognise divergent development

Pre-diagnosis care
Pre-emptive intervention to support social interaction skill development

Eg iBASIS-VIPP

B) AROUND-DIAGNOSIS

Family support

Intervention to support understanding and adjustment

C) POST-DIAGNOSIS

Primary intervention

Family-focused intervention to optimise child development and build caregiver skills

Eg PACT

D) LONG-TERM SUPPORT

Family/Carer management

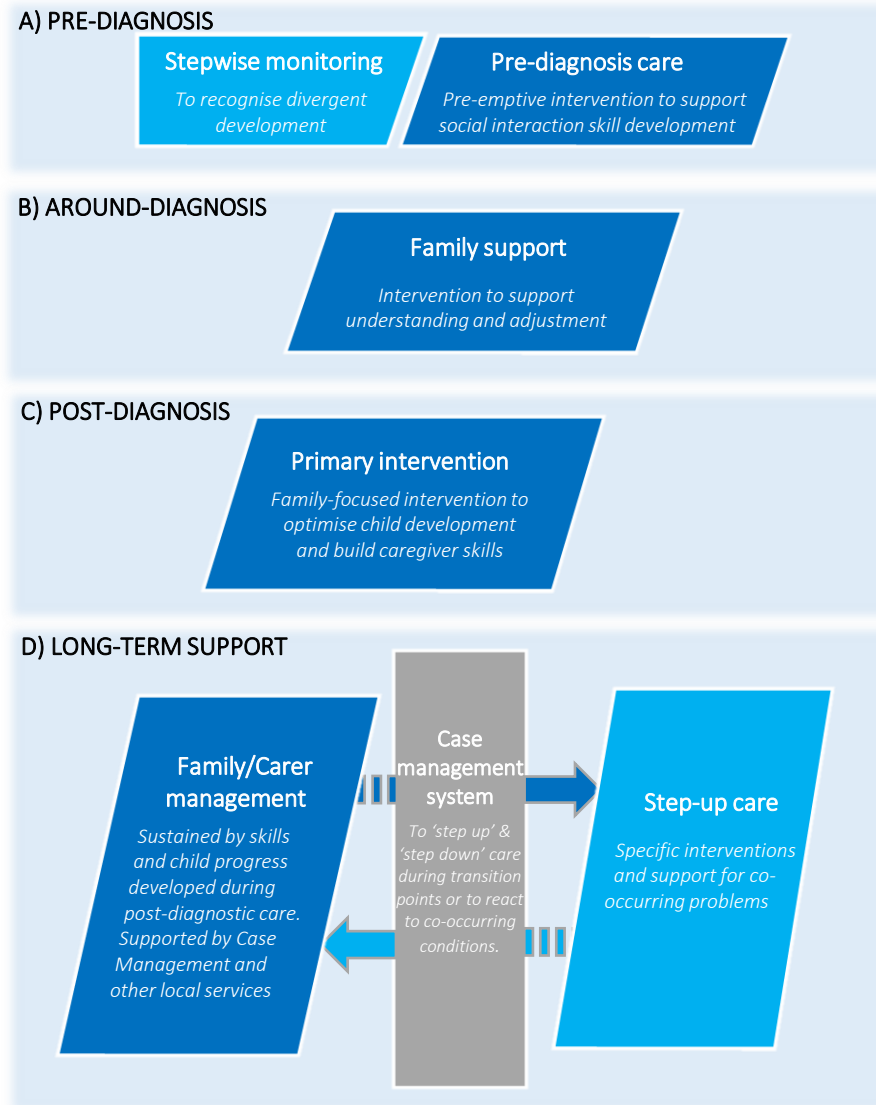
Sustained by skills and child progress developed during post-diagnostic care. Supported by Case Management and other local services

Case management system

To 'step up' & 'step down' care during transition points or to react to co-occurring conditions.

Step-up care

Specific interventions and support for co-occurring problems



Health system provision to make such a model possible

Integrated detection and response

Online registration, family inclusion, symptom monitoring, case management

Specialist step-up services within integrated autism teams in an area



PACT training



Level 1 PACT e-learning (90 minutes)

Hogrefe:

<https://www.hogrefe.co.uk/e-learning/pact-e-learning-information>

Level 2 PACT accreditation training

(2-day training + post-course work)

IMPACT

<https://www.pacttraining.co.uk>

Complete with:

- PACT Manual
- PACT Forms





PACT (Paediatric Autism Communication Therapy)

- **Evidenced** - PACT robust evidence of long-term improved child social communication
- **Structured method** –manualised protocol, six steps programme with measures, using video feedback of adult: child interaction
- **Versatile** - delivered via online /live therapy
- **Generalised** - Parents and education are the primary recipients of intervention to embed skills and strategies in daily 30-minute sessions and eventually throughout the child's day

Parent quote: *'The PACT Programme is simple and easy to incorporate into family life and gives you skills to take forward to apply for the future.'*





Benefits to autistic child & family

- Be understood & understand others
- Competence- active communicative initiations
- Relatedness – connection, social engagement
- Autonomy (positive attributes identified)
- A supportive environment
- Enhanced frequency and range of communication
- Improves relationships
- Reduced distress related repetitive behaviours



Thank you



info@pacttraining.co.uk

www.pacttraining.co.uk

<http://research.bmh.manchester.ac.uk/pact/TrainingPACT/>

