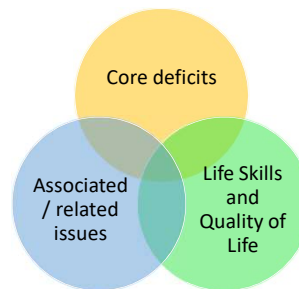




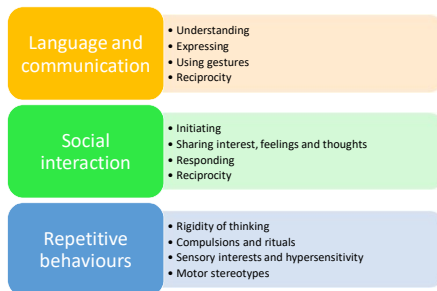
Autism Spectrum Disorders *Intervention approaches*

15th Pan Arab Psychiatric Conference Cairo Sept 2018

The focus of intervention



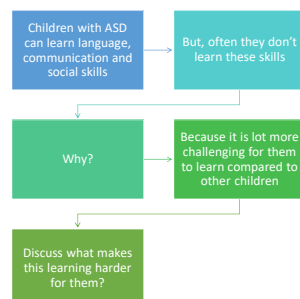
Core deficits



Associated and related issues



Interventions to help core deficits



Types of interventions

- ❑ Psychosocial
 - ❑ Behavioural: e.g. ABA, TEEACH
 - ❑ Developmental: e.g. ESDM,
 - ❑ Naturalistic: e.g. EMT
 - ❑ Hybrid: NBDIs
 - ❑ Pharmacological
 - ❑ For core features
 - ❑ For associated/related issues
- ❖ Centre/school based
 ❖ Therapist provided
 ❖ Therapist supported, parent provided

Early intervention

Recent research has shown that early and intensive intervention is effective.

- Why providing intervention early makes it more effective?

Further reading: Annual Research Review: The state of autism intervention science: progress, target psychological and biological mechanisms and future prospects

Early intervention

Recent research has shown that interventions provided in naturalistic environments are more effective.

What is a naturalistic environment?

Why naturalistic intervention is more effective?

Enhanced responsiveness: evidence

Beneficial

- ✓ Following child's lead (Bakendale and Hesketh, 2003)
- ✓ Joint attention (Tomasello, 1988, Beuker et al, 2013)
- ✓ Expansion (Newport et al 1979)

Detrimental

- ✗ Telegraphic speech (Chafetz et al, 1992)
- ✗ Directive styles (Fitzgerald et al, 2013)
- ✗ Redirecting the child's lead (Tomasello and Farrar, 1986)

Naturalistic intervention

Family involvement

Naturalistic intervention

Adapting the environment to create learning opportunities

Adapting the environment to encourage learning



ITEMS OF THE CHILD'S INTEREST



MOTIVATING



SUITABLE FOR LEARNING NEEDS



PLACED THROUGHOUT THE HOUSE/CLASS



SOME ITEMS PLACED OUT OF REACH



SOME ITEMS IN PARTS



REMOVE/MINIMISE DISTRACTIONS

Making the environment interactive



Being at the child's level



Choosing toys/activities/routines that work best for supporting and extending communication and interaction



Helping the child focus on the activity and interaction

Removing distractions
Keeping alternatives available for substituting

Naturalistic intervention

Enhanced responsiveness:
a style of communication
and interaction that is
effective for children with
autism

What is enhanced responsiveness?

Increasing sensitivity to
the child's
communication cues

Let the child lead:

- joining in
- non-directive
- non-intrusive

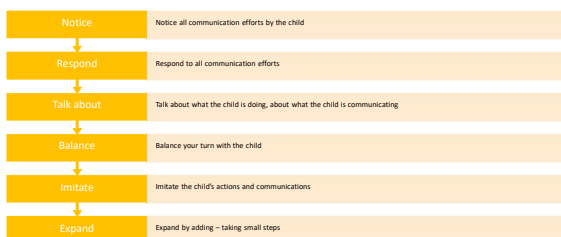
Synchronising activity
with the child

Contingent natural
responses

Naturalistic intervention

Using strategies to
make the child
motivated to
communicate, interact
and learn

Motivating the child to communicate



Some video clips to watch

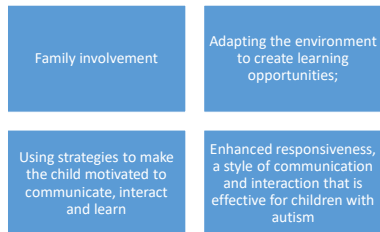
<http://www.interactingwithautism.com/section/treating/jasper>
(From 0148 to 0420)

<https://www.youtube.com/watch?v=unmxS2OYP2I&index=26&list=WL&t=0s> (mother child preschool language impairment)

Sensory motor routine with a song:

https://www.youtube.com/watch?v=xuZrta3qj_1&index=23&list=WL

Naturalistic intervention



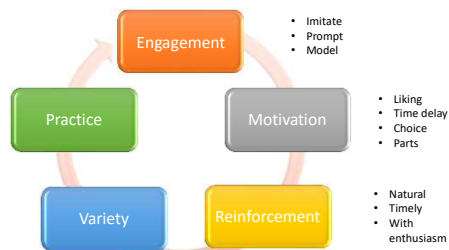
Naturalistic intervention

Teaching strategies for children with ASD

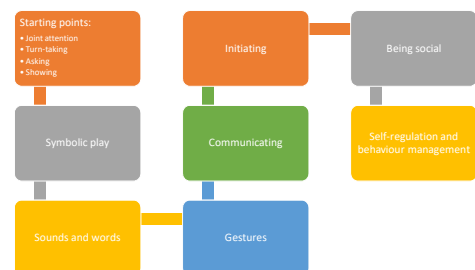
What learning methods are suitable for children with ASD?

What do we want to teach?

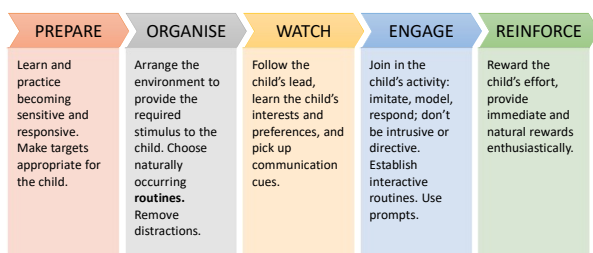
Components of naturalistic learning methods



What must we teach? The learning priorities



How can parents put this into practice? EmPOWER



What is a routine?

A routine is:

✓ Engaging

✓ Predictable

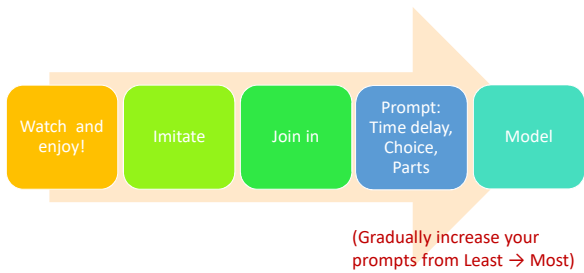
✓ Repeatable

✓ Adaptable: become more flexible, complex, and longer over time

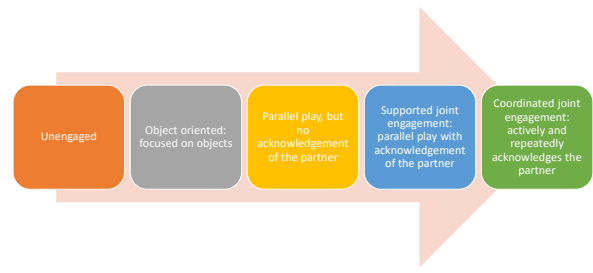
Example: build with bricks, make a hour, put people in and out, crash and elaborate.

Ref: EMT

Build your engagement in steps:



Engagement improves in steps:



Helping social communication

Organising and supporting	Organising and supporting social activities with peers
Supporting friendships	Setting up circle of friends
Using narratives	Using social stories

Supporting behaviour - reducing stressors

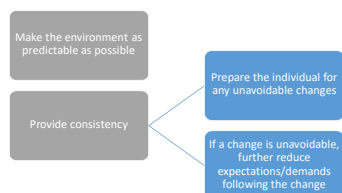
Sensory stressors e.g. noise, crowd, light,

Change stressors: routines for daily activities

Demand stressors: homework, getting ready to go

Social stressors: family agenda, new people, teasing, bullying

Increase Environmental Supports



Problem behaviours – two perspectives

Parent/teacher

- ❑ Does not follow instructions, oppositional, defiant
- ❑ Tantrums
- ❑ Disruptive
- ❑ Aggressive
- ❑ Self-injury
- ❑ Destructive

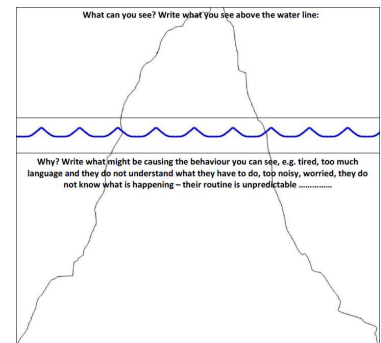
Child

- ❖ Don't understand others
- ❖ Others don't understand me
- ❖ This is how I get what I want
- ❖ This is how I can avoid/escape from this situation that is too difficult/hard/confusing/scary
- ❖ Too anxious
- ❖ Poor control
- ❖ RRIB

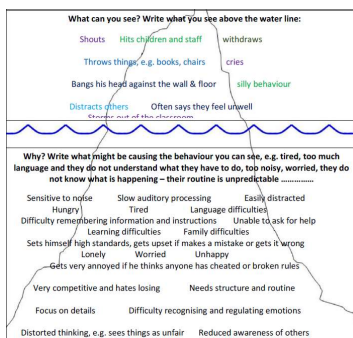
Underlying causes of behaviour difficulties in ASD



The Iceberg model of behaviour difficulties in autism



The Iceberg model of behaviour difficulties in autism



Doesn't the same happen in all children, and get better with time?

Typically developing young children: yes, mostly. Still, it depends on the child and the parent.

Children with ASD: No!
Once moderate to severe problem behaviours become established they do not usually outgrow them. Without appropriate intervention, these behaviours persist and worsen

Problem behaviours in ASD - Psychosocial management

There are two approaches one has to take simultaneously:

- | | |
|--|---|
| <p>Manage the problem behaviour:</p> <ul style="list-style-type: none"> Keep the child and others safe; use behaviour management strategies. | <p>Develop positive and pro-social behaviour</p> <ul style="list-style-type: none"> Improve communication and social skills Develop skills for coping with anxiety |
|--|---|



The research evidence suggests that interventions that do not address the development of positive and prosocial behaviours will be unsuccessful in the long-term elimination of problem behaviours.

Preventative interventions



Teaching alternative behaviours -1

Consequence-Based Approaches

Antecedents: External e.g., mother tells child it is time to go to the store, or internal conditions (e.g., child feels pain or hunger)

Behaviour (e.g., running around the house instead of going to the door)

Consequences: reinforcement, e.g., mother makes a game of chasing the child to get him into the car

This approach can be used to

decrease the problem behaviour by changing the consequences of the behaviour that are thought to be reinforcing (extinction-based procedures).

encourage the development of alternative behaviours that are incompatible with the problem behaviour (differential reinforcement of alternative behaviour).

Teaching alternative behaviours -2

Functional Behavioural Assessment

- Identifying the variables that reliably predict and maintain problem behaviours:

E.g. a means of communicating needs; social attention; social avoidance; escape from difficult or boring tasks or other aversive situations; access to desirable tangible items and preferred activities; and generation of sensory reinforcement.

- Altering antecedents or consequences that can give the child the same "payoff" he or she received from the previous problem behaviour-

Teaching alternative behaviours -3

Prosocial skills:

- Play skills
- Fun activities

Self-regulation skills

- Waiting
- Control

Relaxation skills

- Deep breathing
- Listening to music
- Using sensory alternatives

Medications to Reduce Behaviour Problems

For core features of ASD

- No medication

For some problematic symptoms

- e.g. agitation, hyperarousal, sleep disorder, perseverative behaviour,

For coexisting problems

- e.g. ADHD, depression, anxiety

Further reading: Pharmacologic treatment for the core deficits and associated symptoms of autism in children

Anxiety – the commonest coexisting condition

Caused by

- Change/uncertainty
- Social interactions
- Fear of failure / anticipatory
- Separation
- Sensory / information overload
- General diffuse

Presents as

- Emotional outbursts
- Oppositional behaviour
- Challenging behaviour
- Repetitive / compulsive behaviour
- Physical symptoms

Managing anxiety – Prevent

Improve sleep

Regular physical exercise

Practice relaxation: deep breathing, imagery, singing

Do enjoyable activities: reading, music, massage

Managing anxiety – *Adapt*

- Prepare, visual timetable, task breakdown
- Clarify, remind, ease transition, support when needed
- Anticipate: distract (sensory), reduce demands,
- Allow escape, give time and space, set up routine

Managing anxiety – *using strategies*

- Learning to self-identify stress
- Learning self-calming tools
- Learning to cope – a menu of coping methods
- Cognitive treatment strategies
- Medication

Alternative Therapies unproved

- Gluten-Casein Free Diet**
 - Based on toxicologic opioid hypothesis
- Nutritional Supplements**
 - Based on hypothesis that minerals and/or vitamins improve "autistic behaviors"
- Immune globulin therapy**
 - Based on assumption Autism is an autoimmune abnormality
- Secretin**
 - Intravenous hormone that stimulates pancreas and liver to manage "autistic behaviors"
- Chelation**
 - Based on hypothesis that mercury exposure is cause of Autism

Supporting parents

- Good accessible information
- Support from other parents
- Social, financial and emotional support
- Continuity of care

Outcomes

- Outcomes in ASD are variable, depending on the child's abilities and the help given
- A better outcome is, at least partly, related to a better intellectual ability
- The focus in outcomes should be on improving the child's independence and Quality of Life for the child and the family.