

Loss of functions in adolescents with Downs syndrome and autism

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Background

In 2004 The National Autism Unit initiated a study on the co-morbidity of Down syndrome and autism

- Identify clinically important features of the dual diagnosis
 - Communication and language
 - Activities
 - Psychiatric health
- To describe interventions suitable for persons with Down syndrome and Autism

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Sample

- 12 persons with Down syndrome and autism
- 3 girls and 9 boys
- Age from 4 – 20
- Function varies from severely retarded persons without language and with very few communication strategies to persons with good developed language and reading skills.

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Identification of Autism

The phenotype of Down syndrome do not make the identification of autism difficult

- They show challenges in the same areas as persons with autism
 - The retrospective nature of some of the cases complicates the identification of autism
- The diagnosis is set very late
- Parents identify the problems rather early
- Difficult to get acceptance from professionals
- The person's problems are attributed to Down syndrome

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Characteristics of the double diagnoses

- Relation between formal language and pragmatic language
- More athletic than usually seen in Down syndrome. Less hypotonic
- Passive reactions to unanticipated events
 - Accept unfavourable autism-environment
 - They are observers to social activities
- Some of them develop a strange voice
- Skills may disappear
- They respond better to humour and flexibility than usually seen among persons with autism

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Development towards passivity

- High incidence of passivity problem
 - Focus related performance disorder
 - Anomia, lack of interest.
 - Learned helplessness
 - Difficulties with initiative
 - Absent-minded in a close to psychotic degree
- The passivity problem are positive related to age

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Loss of functions

- The oldest in our sample (20) had already lost functions when we met him
 - Autism was identified at the age of 9
 - His cognitive abilities was above average for Down syndrome
 - He had augmentative communication at preschool, this was terminated when entering primary school
 - He was exposed for extensive ABA interventions during primary and secondary school
 - He lost most of his verbal language at the age of 12

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Loss of functions

- From the age of 13 to 16 three more of our adolescents undergo a clear regression of skills and communicative ability.
- The loss of abilities and activities occur throughout the intellectual span of Down syndrome. (from high moderate to severe mental retardation.)

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Signs of the decline

- The adolescents developed strange voices about a year ahead of the language decline
- They started to loose interest in previously engaging activities.
- Their decline in functions started with difficulties with automated movements in social situations like eating, washing and dressing

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Hypotheses about the loss of function

- The combination of autistic attention disorders and variable reaction time
 - Extremely few successful dialogues
- Sensory integration
- Biological causes
- Loss of language environment

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Implication for intervention

- Considerations on direction of attention
 - Avoid focus on details of performance
 - Avoid splitting activities, attention to the whole activity
 - Change the “density” of the structure, depending on present condition

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Implication for intervention

- Emphasize development of interests and activities
 - Avoid activities that demand lots of instructions
 - Ensure attempts to establish different types of activities.
 - Activities to be occupied with alone
 - Activities that are potential parallel
 - Activities that are potential social

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Implication for intervention

- Consideration to reaction time
 - Awareness of high variation on reaction time
 - Combination of autistic attention disorder and prolonged reaction time makes interaction demanding

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Research group

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