Therapy for Young Stuttering Children with Cognitive and Emotional Problems

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- Information
- Prevention
- Assessment
- Therapy
- Parent counseling
- Education (speech therapists)
Overview of this presentation:

- Why this subject?
- Defining terminology
- Temperamental influences/ recognizing cognitive/emotional problems
- Intervention:
  - Therapeutic goals
  - Clinical decision making: indirect ↔ direct intervention, combination
  - Direct intervention strategies
Why this subject?

• Practice evidence
• Evidence based: implementation
• Recognition research findings
• Early intervention
• (Renewed?) interest in the impact of cognitions and emotions
• Secondary prevention
Defining terminology

• Indirect therapy: working with important people around the child

• Direct therapy: working directly with the stuttering child itself

• Young stuttering children: children who are about (2) 3-6 years of age and who are ‘diagnosed as stuttering’.
Stuttering…..a problem?
Erasmus-4 component model, Stournaras, 1980

- Cognitive component
- Verbal motoric component
- Emotional component
- Social component

Cognitions, attitudes, ideas
Talking, stuttering concomittant behaviours
Interaction with others: parents, friends, situations
Emotions, feelings, physical reactions

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Temperament (Rothbart, 2001)

• Constitutionally based and individual differences in reactivity and selfregulation

• Reactivity: biological basis, influenced by maturation and experiences

• Selfregulation: process that can facilitate or inhibit one’s reactivity (the behavioural aspect of temperament)
Information about temperament

- Interview parents
- Observing the (stuttering) behaviour precisely, always use video (interaction)
- Questionnaire Elisabeth Oyler/ other questionnaires about temperamental factors
- Talking directly with the child about his/her stuttering, adjusted to overall development

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Video Luca, cognitions and emotions?
Awareness,
video Julia, recognizing stuttering behaviour
Evidence: Stuttering and temperament
(Anderson, 2006; Conture 2006; Eggers 2010; Boey 2010)

CWS as a group

• score higher on anger, frustration, approach and activation
• score lower on inhibitory control and attention shifting
• score more sensitive and/or reactive
• score lower in self regulatory processes
This ‘evidence’ is recognized in clinical observations. Besides we observe: CWS with ‘high temperament’ often:

- have advanced speech- and language development (metacognition)
- put high standards on one self
- show low frustration tolerance
- have problems in bio-rhythm
- develop more serious stuttering behaviours
• react more emotionally
• are fully aware of their stuttering problems, fast after the onset of stuttering
• react with anger and frustration to stuttering,
• show more severe motoric reaction
• develop more avoidance and struggle behaviour
• are reluctant to take risks

Strong mutual influences between high awareness and reactions from environment is observed
High standards, video Guus
Cognitions and emotions involved? When do we have to pay attention?

• Age boundaries?
• Time since onset?
• Specific stuttering patterns?
• Described phases in development?
• Or…….. Individual development?
Clinical decision making

The child itself indicates our therapeutic intervention strategies
Temperamental factors: implications for the development of stuttering problems

• Reacting more emotionally: higher motoric activity → more struggle/tension + (?)more secondary behaviour

• Lack of adequate self-regulation → more and faster loss of control/less ability in problem solving
Slower to adapt to novelty.

- tendency to be shy, withdrawn, fearful, cautious... in new situations (more avoidance behaviour)
- less frequent communicative practice
- less quality of verbal output →? less practice in language/phonology?
- or...because of safe feelings: less challenge to move on in language development (specific avoidance behaviour)
Lower in attention shifting and higher on focussing....hypervigilance

- less capable in choosing appropriate regulation strategies (low efficiency in suppressing inappropriate approach responses)
- less easy to ‘move along’ in general daily living and in stuttering/speaking (more struggle and physical tension)
Lower in attention shifting and higher on focussing….

- less responding to suggestions to change

- more resistance in daily living (raising the child) and during school/therapy (education)
In general:

• high temperament: more vulnerable to stuttering evoking factors
• high temperament: more severe stuttering behaviours and less ability to cope with it
• experience of more emotional arousal + experiences → implications for the conditioning processes in future
Therapy:

Specific temperamental aspects require direct interventions

Continuous strong influence environment

Take into account: mutual influences of temperamental factors of the child and temperamental factors of the parents
Direct therapy: always benefit from effects of preceding and/or ongoing indirect therapy!

- **Stuttering -Demands & Capacities-**  
  (Starkweather & Givens Ackerman, 1997)

- **Stotteren van theorie naar therapie**  
  (Bezemer, Bouwen & Winkelman, 2006)

- **Palin PCI approach**  
  (Kelman & Nicholas, 2008)

- many other publications
mutual interaction child and environment
Direct therapeutic intervention

• Despite continuous indirect attention: not enough results in child's fluency

• Parent counseling, SCZ: courses for parents, modeling, also dealing with temperamental aspects

• Talking must be or must have become enjoyable again

• Child must be understood, reassured

• Goals: adjusted to individual needs, to phase of development in general

• Integration of all 4 components (Stournaras)
Direct intervention cognitions and emotions -topics-
sequence of items adjusted to individual or group average

• Talking about talking and talking about stuttering
• Talking about cognitions and emotions, (+physical aspects)
• Tolerance/ desensitisation to stuttering
• Turntaking, waiting
• ‘Talking time’ and ‘listening time’

• Cognitive therapy for preschoolers: problem solving strategies: turntaking, high standards, interaction others

• Talking in groups: improving pragmatic skills

• Experimenting with all kinds of speaking/stuttering and (more) fluent speech
Talking about speaking and stuttering, video Julia
Cognitions and emotions. doll’s of the same height as the child give more recognition of the beginning emotions: sorrow, anger, fear, joy, (shyness)
Benefits of learning to talk about cognitions and emotions (for all children!)

- More contacts, more initiative
- More curiosity, more interest → more experiences → more flexible in regulation
- Better in using communicative functions of language, increase pragmatic skills
- Longer turns in conversation, better turn taking
- Decrease physical tension → less struggle
‘Making a mistake is not the end of the world’

Discussion:

When working with adults, clinicians have to pay much attention to teaching the client to allow himself to make mistakes.

What about: adolescents? school age children? preschoolers?

When starts the learning process?
Making a mistake, Luca and Juweiria
Importance of verbalizing ‘inner speech’ (Vygotsky, Meichenbaum)

- Inner speech activates and corrects one’s own behaviour, gives possibility to self-instruction
- Inner speech colours how someone perceives stimuli/ situations (for instance: ‘I am a fool, I’ll never succeed!’)
- Use of verbalizing inner speech: strong aid in self-regulation capacities
Desensitizing to the moment of stuttering (‘mistake’)

- Indirect therapy was successful? Speaking is enjoyable.
- Talking about stuttering
- Listening to ‘stutters’
- Gradually production of ‘stutters’
- Daring to make ‘stutters’ is rewarding now
Desensitizing from the start? Fedde
Desensitizing for the moment of stuttering

- Verbalize inner speech = cognitive support
- Gradually cognitive learning
- Transfer (modeling)
- Confronting daily
- Frustration tolerance ↑
Video: desensitizing
Turn taking, resisting time pressure, waiting

- Turntaking, from turns in a row to turns indifferently, short and long turns!
- Verbalize inner speech, change regulating behaviour, accompany turn taking cognitively
- Compare to other game-, daily life- and speech situations
- Bring in others (modeling, transfer)
Talking-time or listening-time?

• Draw with the child several speech situations.
• Judge and discuss: suitable for talking?
• Introduce the ‘talking light’/‘traffic light’
• Possible regulation strategies/ problem solving
• Use a ‘talking doll’ as a model. ‘Joost’ is also stuttering.
Traffic light/ talking light

Making a mistake?
Problemsolving, e.g. making ‘mistakes’

- Involve parents/ others (models!)
- Coach parents!

- Provoke a concrete situation or draw a remarkable situation

- Discuss what is going on, cognitions? emotions? consequences? (SORC)

- Cognitive influence possible?
• Invent several solutions, draw them

• Roleplay, experience a diversity of solutions

• Judge the alternative solutions, choose some

• And what does ‘Kiko’ think about this? (independant judgement)

• Discuss and/or experience frustration tolerance
Problemsolving, consider several solutions

Jan is sfe, hij wil een verhaal vertellen, maar de stellers zitten in de weg en iedereen praat er door.

- Nadenken wat je wil vertellen.
- Gewoon doen stotteren.
- Hebben wel iets te vertellen.
- Vragen of ze willen luisteren zonder erdoor te praten.
- Even wachten.
- Rustig worden.
- Jan voelt heel boos.
- Jan zegt niks meer.
- Jan loopt weg.
- Thuis stellers oefenen. De stellers zijn te huur niet de boas.
Role play several solutions, Luca in group.
Hats facilitate to put oneself in someone’s place during role playing.
Effects of desensitizing and cognitive training

• Speaking situations evoke less stress/anxiety $\rightarrow$ improved self confidence

• Child doesn’t need secondary behaviour anymore

• Improved self regulation: cognitively, emotionally, socially, verbal motoric

• Safe foundation to start verbal motoric interventions if necessary

• Secondary prevention
Video Luca and Juweiria: daring to stutter / stuttering easier
Long term benefits of direct approaches

Conclusions from practical based evidence:

- Striking change of struggle and avoidance behaviours
- Improving amount of speaking
- Talking with the child about stuttering much easier for the parents/ caretakers
- Safer base for verbal motoric intervention
Long term benefits of direct approaches

• Relapse: stuttering is open to discussion
• Parents less sensitive about the stuttering, no taboo
• Stuttering problem can better be analyzed
• Improved regulations, future therapy strategies can be continued on a higher level of child’s development
• Probably less stuttering problems in future
Decrease sensitivity to the stuttering event:

- Increases self confidence
- Increases problem solving
- Promotes enjoyment of speaking
- Breaks the link between ‘stuttering’ and being ‘out of control’

Conclusion: surface fluency at cost of avoidance is no control at all!
Long term benefit of early direct intervention, Luca
Thank you!

Questions?

www.stottercentrumzeeland.nl
also for workshops on stuttering therapy
(for speech therapists)