Emotional Difficulties in People with Autism Spectrum Disorder

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Autism Spectrum Disorder

Baird et al., 2011; Elsabbagh et al., 2012; Fombonne, 2011; Mattila et al., 2011; Saemundsen et al., 2013
Autism Spectrum Disorder

- Social communication
- Social interaction
- Restricted and repetitive patterns of behaviors and interests

DSM-5 - American Psychiatric Association, 2013
Autism Spectrum Disorder

- **Social communication**
  - complete lack of speech
  - poor comprehension of speech
  - echoed speech
  - intact vocabulary and grammar but impaired social communication

- **Social interaction**

- **Restricted and repetitive patterns of behaviors and interests**
Autism Spectrum Disorder

- Social communication

- Social interaction
  - eye contact
  - gestures
  - facial expressions
  - body orientation
  - speech intonation

- Restricted and repetitive patterns of behaviors and interests

DSM-5 - American Psychiatric Association, 2013
Autism Spectrum Disorder

- Social communication
- Social interaction
- Restricted and repetitive patterns of behaviors and interests
  - motor stereotypies
  - repetitive use of objects
  - repetitive speech
  - excessive adherence to routines
  - ritualized behaviors
  - highly restricted and fixated interests

DSM-5 - American Psychiatric Association, 2013
Emotional Difficulties in Autism

- Difficulties
- Consequences
- Causes
- Solutions
Which emotional difficulties?
Which emotional difficulties?

- Emotional reactivity
- Emotion regulation
- Emotional awareness
- Emotional incoherence
Which emotional difficulties?

- Emotional Reactivity

Arousal of emotion and its subjective, behavioral, and physiological components (Gross & Jazaieri, 2014).

Emotion Regulation

Attempts to influence which emotions to have, when to have them, and how to express and experience them (Gross, 1998).

Which emotional difficulties?

- Emotional Awareness

General difficulty in recognizing, describing, and distinguishing own emotions and emotions in others (Sifneos, 1973).


Which emotional difficulties?

- **Emotional Incoherence**


Emotional Difficulties in Autism

Difficulties

Consequences
The consequences

Emotional Reactivity
(Samson et al., 2015)

Emotion Regulation
(Guy et al., 2014)

Anxiety
(Simonoff et al., 2008)

Depression
(Meyer et al., 2006)

Disruptive behavior
(Totsika et al., 2011)

Impulsivity
(Pouw et al., 2013)
The consequences

- Adaptive development
- Social competence
- Peer-acceptance
- Academic achievement
- Risk of developing further mental disorders
- Parents and siblings’ well-being

Burt et al., 2008; Costa et al., 2017; Saarni, 1999
Mental Health

The consequences

- Mental Health in the Family


Emotional Difficulties in Autism

- Difficulties
- Consequences
- Causes
Attentional Processes

Mediates the relation between parent-child interactions and children's emotional difficulties in reactivity and regulation.

Costa, Steffgen, & Samson (submitted)
Exacerbates emotional reactivity difficulties, which can impair emotion regulation.

Costa, Steffgen, & Samson (2017)
Increases emotional incoherence by moderating the expression of positive emotions during negative behaviors.

Costa, Steffgen, & Vögele (2018)
Explains reduced parent-child interaction better than ASD diagnosis.

Costa, Steffgen, & Vögele (2018)
Mediates the relation between parent-child interactions and children's emotional difficulties in reactivity and regulation.

Costa, Loor, & Steffgen (in preparation)
Moderates the relation between autistic traits and suicidality.
Emotional Difficulties in Autism

- Difficulties
- Consequences
- Causes
- Solutions
Solutions

- **Technology provides an autism-friendly environment:**
  - Predictable
  - Systemic
  - Rule-based
  - Allows repeating patterns
  - Novel sensory stimuli
  - Embodied multi-modal aspects

Dautenhahn & Werry (2004); Robins et al. (2006); Scassellati et al. (2012); Thill et al. (2012)
Advantage of Technology

Attention

Advantage of Technology

Imitation

Repetitive and Stereotyped Behaviors

Emotional ability intervention mediated by a robot

Effects on emotional ability

Effects on internalizing and externalizing problems

Effects on autism-related symptomatology

Emotional Difficulties in Autism

- Difficulties
- Consequences
- Causes
- Solutions
thank you!