

Reading (Aloud) and Mental Health

Stiftung Lesen

Researchers Network Meeting | 13th of October 2022 | Dr. Betty Becker-Kurz & Prof. Dr. Simone Ehmig

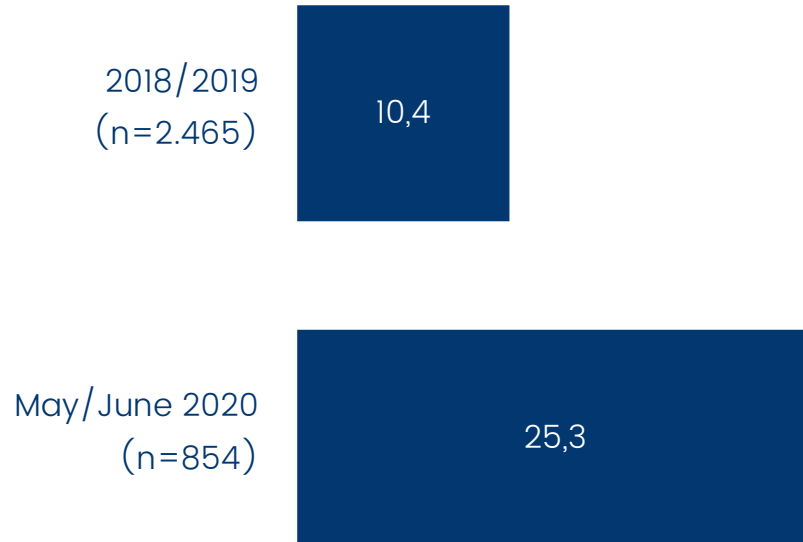


Why MENTAL HEALTH?

High Increase of Depressive Symptoms Among Adolescents

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Proportion of Adolescents, who Show Depressive Symptoms | in Percent



Basis: Paifam panel on relationships and families, 2018 / 2019 and additional Covid-19 survey 2020, same birth cohorts 2001 – 2003. Collection of data on depressive symptomatic by applying a German version of the State-Trait Depression Scale (STDS), Munich-Composite International Diagnostic Interview (M-CIDI).

Naumann, E., von den Driesch, E., Schumann, A., & Thönnissen, C. (2021). Anstieg depressiver Symptome bei Jugendlichen und jungen Erwachsenen während des ersten Lockdowns in Deutschland. *Bundesgesundheitsblatt - Gesundheitsforschung - Gesundheitsschutz*, 64(12), 1533-1540. <https://doi.org/10.1007/s00103-021-03451-5>

Mental Health of Parents is also Affected

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The Link between READING (ALLOUD) and MENTAL HEALTH

The Importance of Reading Aloud– Clinical Evidence

The Improvement of Symptoms of Anxiety and Depression Through Shared Reading Experiences

Results of the *Child Behaviour Check List*

	Assessment 1 Mean (SD)		
	Intervention Group	Control Group	p-value
Anxiety / Depression	63.33 (8.69)	61.00 (7.35)	0.27
Social problems	69.67 (14.08)	70.00 (10.80)	1.00
Somatisation	59.50 (13.66)	59.50 (11.71)	1.00
Thinking problems	60.50 (11.71)	67.50 (8.10)	0.23
Attention problems	66.83 (10.36)	69.25 (4.03)	0.91
Aggressive behaviour	57.50 (9.46)	54.75 (4.43)	0.91

Basis: Children with autism spectrum disorders, who were between the age of eight and ten, (mean= 9.24, SD=.82), who participated in a 5-weeks intervention program were assessed. The children allocated to the intervention group, read aloud to their mothers a minimum of 30 minutes for at least five days a week.. The mothers listened to their children and spoke with their children about what they have read.

Tachibana, Y., Hwang, Y., Abe, Y., Goto, S., Sugai, K., & Kawashima, R. (2013). Reading aloud improves executive function of children with autism spectrum disorder: A pilot randomized controlled trial. *International Journal on Disability and Human Development*, 12(1), 91-101. <https://doi.org/10.1515/ijdh-2012-0128>

The Improvement of Symptoms of Anxiety and Depression Through Shared Reading Experiences

Results of the *Child Behaviour Check List*

	1. Assessment Mean (SD)			2. Assessment Mean (SD)		
	IG	CG	p-value	IG	CG	p-value
Anxiety / Depression	63.33 (8.69)	61.00 (7.35)	0.27	57.33 (5.50)	62.25 (5.06)	0.03
Social problems	69.67 (14.08)	70.00 (10.80)	1.00	65.17 (10.01)	69.50 (8.23)	0.59
Somatisation	59.50 (13.66)	59.50 (11.71)	1.00	57.00 (7.35)	58.50 (10.12)	0.82
Thinking problems	60.50 (11.71)	67.50 (8.10)	0.23	58.50 (11.20)	59.25 (10.87)	0.19
Attention problems	66.83 (10.36)	69.25 (4.03)	0.91	65.83 (10.07)	67.75 (4.11)	1.00
Aggressive behaviour	57.50 (9.46)	54.75 (4.43)	0.91	57.67 (7.39)	54.00 (2.83)	0.52

Basis: Children with autism spectrum disorders, who were between the age of eight and ten, (mean= 9.24, SD=.82), who participated in a 5-weeks intervention program were assessed. The children allocated to the intervention group, read aloud to their mothers a minimum of 30 minutes for at least five days a week.. The mothers listened to their children and spoke with their children about what they have read.

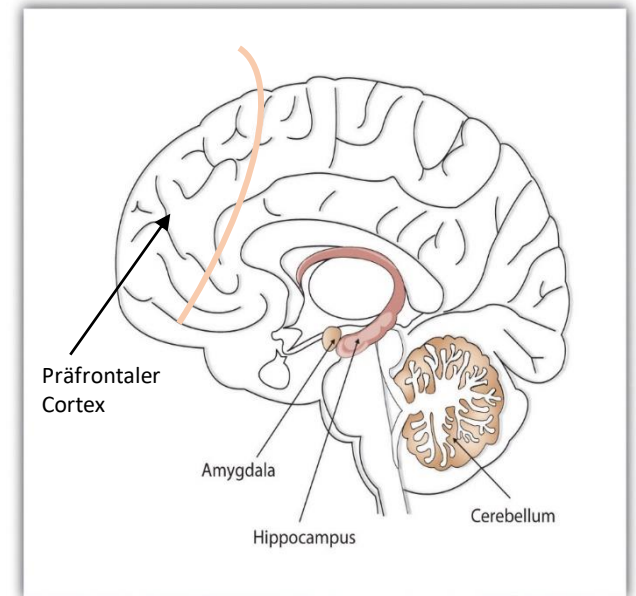
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Why Reading (Aloud) Works - Neuroscientific Evidence

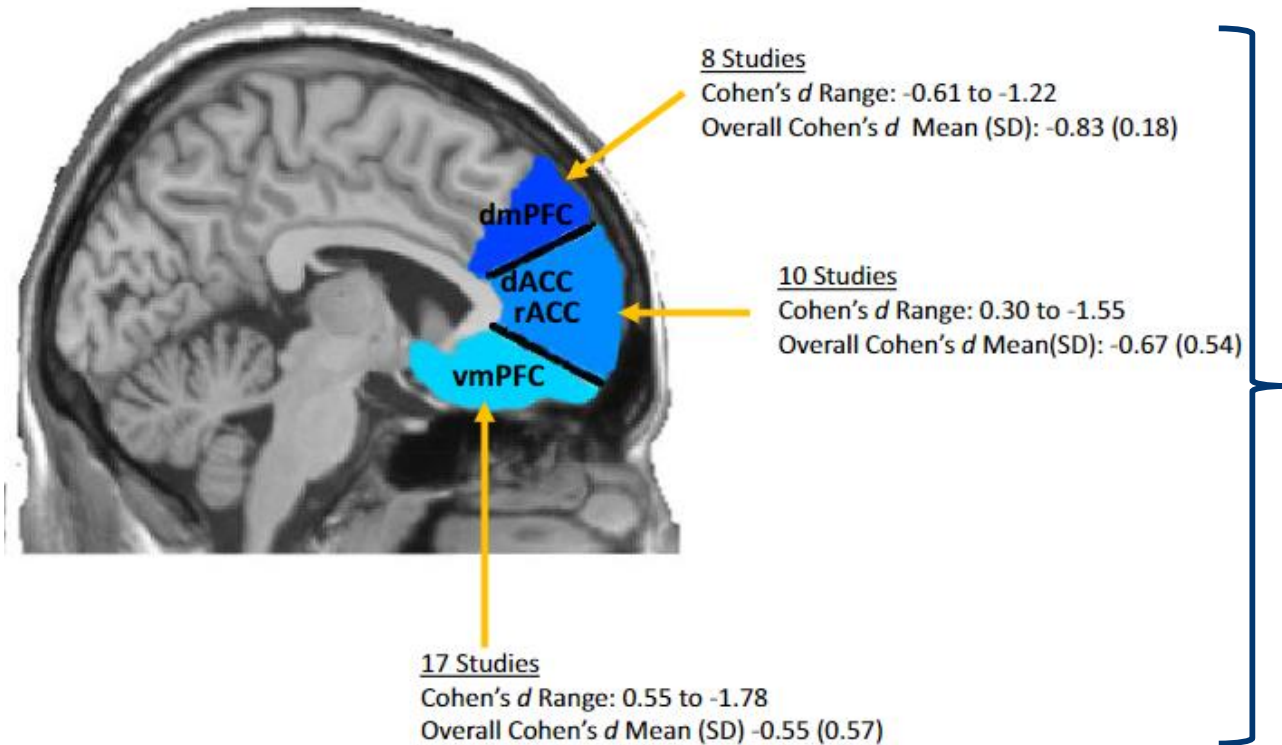
Prefrontal Cortex – Key Role for the Regulation of Emotions

The prefrontal cortex plays an important role for

- regulations of emotion
- experience of positive emotions
- Depressive symptoms are increased following left-sided anterior prefrontal cortex damage.
- Neuroimaging studies (fMRI) have revealed, that depression and anxiety are related to decreasing brain activity in the prefrontal cortex (Davidson, 2002).



Prefrontal Cortex – Key Role for the Regulation of Emotions

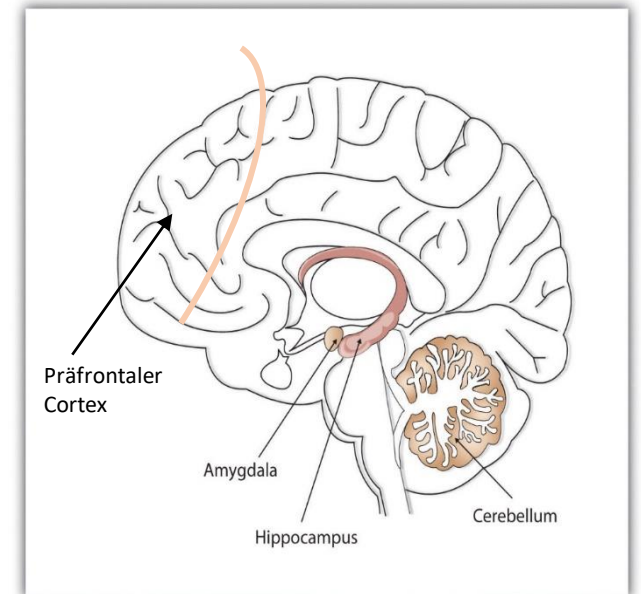


In a meta-analysis including 35 studies, Belleau and her team showed, that chronic stress, depression and anxiety can lead to a structural decline of the prefrontal cortex. This decline was shown in several studies for the ventral and dorsal portions of the prefrontal cortex as well as the cingulate cortex.

Reading (Aloud) Activates the Prefrontal Cortex

Miura and colleagues have applied neuroimaging methods (fMRI) to investigate 23 healthy adults:

- Reading and reading aloud activates the prefrontal cortex.
- Reading aloud activates the regions of our brain, which are affected by depression, anxiety and chronic stress.



1. READING (ALoud) Fosters Socio-Emotional Competencies

Reading (Aloud) Helps Children to Regulate Their Emotions

- Children, who are mentally ill, show
 - have a lower self-esteem and suffer emotionally
 - symptoms of learned helplessness (Canino, 1981)
- Reading aloud fosters self efficacy within children, as their parent gave them more attention and praised them for their efforts.
- Regular sessions of reading aloud leads to a cycle of positive reinforcement.
(Tachibana et al., 2013).

Canino, F. J. (1981). Learned-Helplessness Theory: Implications for Research in Learning Disabilities. *The Journal of Special Education*, 15(4), 471-484. <https://doi.org/10.1177/002246698101500408>

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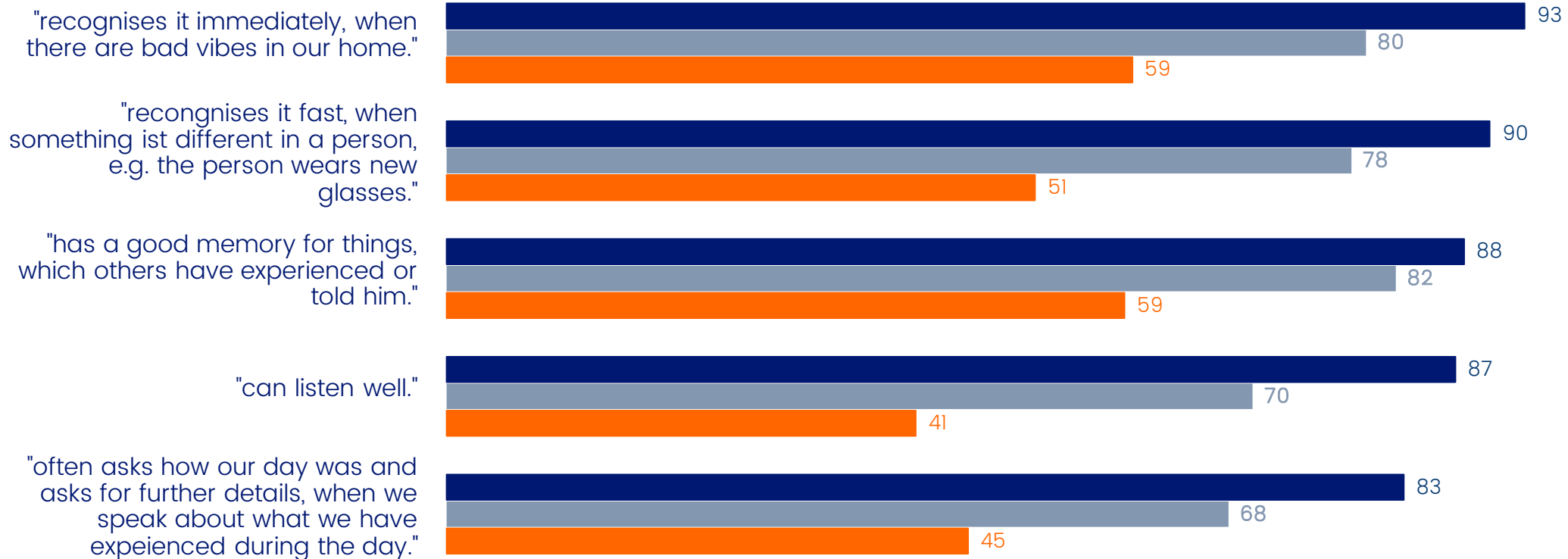
Reading Aloud – Link to Socio-Emotional Competencies

- Read Aloud Study 2015 of ‚Stiftung Lesen‘ (German Reading Foundation), funded by Deutsche Bahn Stiftung (German Railways Foundation) and Die Zeit (German Weekly Newspaper)
- Standardized face-to-face interviews with 824 children between the age of 8 and 12 years as well as their mothers during the summer of 2015.
- Focus of the Survey:
Social competencies of children and further socio-emotional variables
- Children were asked to fill in a self-assessment while their mothers were asked to assess their children.

Children, who are Read Aloud to Frequently Show Higher Levels of Sensitivity, Empathy and Interest in Others

Question directed at mothers (n=524): "I now read aloud a few statements given by parents, whose children are in a similar age group as your children. Which of these statements also applies to your child? Please answer these questions by referring to the following list." | Answers given on a 4-stufige Lickert scale, ranging from 1 'does not apply' to 4 'I experience this often, this happens,' | Proportion in percent

My child ...

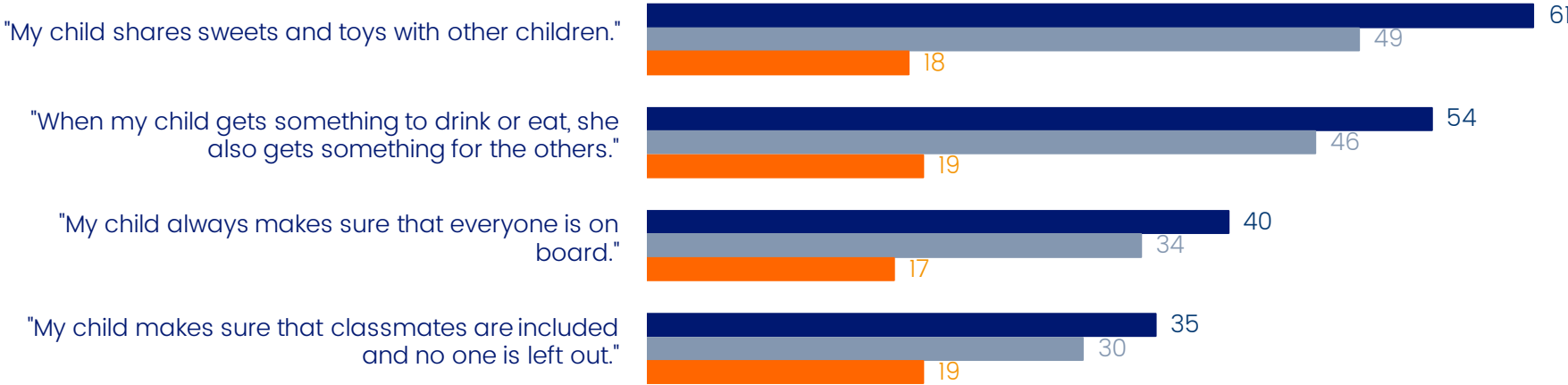


Children, who were... ■ read loud to daily (n=134) ■ read aloud to weekly (n=235) ■ read aloud to seldomly or never (n=155)

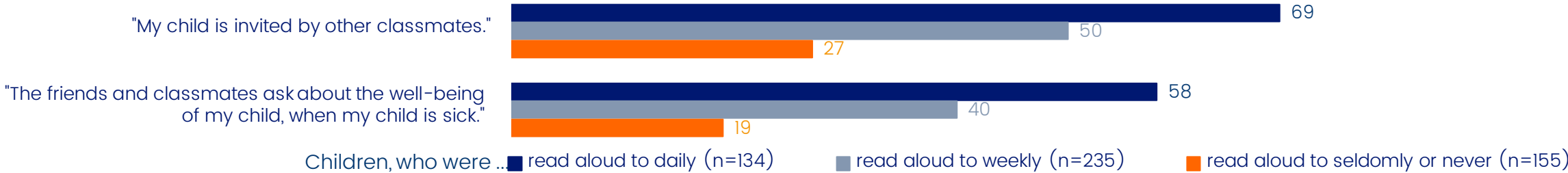
Not Only Children Benefit from Being Read Aloud to

Question directed at mothers (n=524): "I now read aloud a few statements given by parents, whose children are in a similar age group as your children. Which of these statements also applies to your child? Please answer these questions by referring to the following list." | Answers given on a 4-stufige Lickert scale, ranging from 1 'does not apply' to 4 'I experience this often, this happens,' | Proportion in percent

The child's environment benefits from the child's commitment and engagement ...



... and children benefit themselves because their environment gives back



Stiftung Lesen (2015). *Vorlesestudie 2015. Vorlesen – Investition in Mitgefühl und solidarisches Handeln. Repräsentative Befragung von Kindern im Alter von 8 bis 12 Jahren und ihren Müttern.* https://www.stiftunglesen.de/fileadmin/Bilder/Forschung/Vorlesestudie/Vorlesestudie_2015.pdf.

Further Questions?

We would gladly assist in facilitating attaining resources!

Institute for Research on Reading and Media

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more information to be found on our webpage: www.stiftunglesen.de/vorlesestudie

Further Questions?

Stiftung Lesen, based in Mainz, Germany, is a foundation that is committed to reading and literacy promotion.

We believe that reading is a prerequisite for full participation in today's media-led and culturally diverse society. In this day and age, reading is fundamental to human development, enabling people to live full and meaningful lives contributing towards the enrichment of the communities in which we all live.

→ www.stiftunglesen.de

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