



WHAT IS THE EVIDENCE?

A REVIEW OF THE LATEST RESEARCH ON
SELECTIVE MUTISM TREATMENTS,
MECHANISMS, AND CORRELATES

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sma
SELECTIVE MUTISM
ASSOCIATION

PRESENTER: RACHEL MERSON, PSY.D.
MODERATOR: KATELYN REED, MS, LLP
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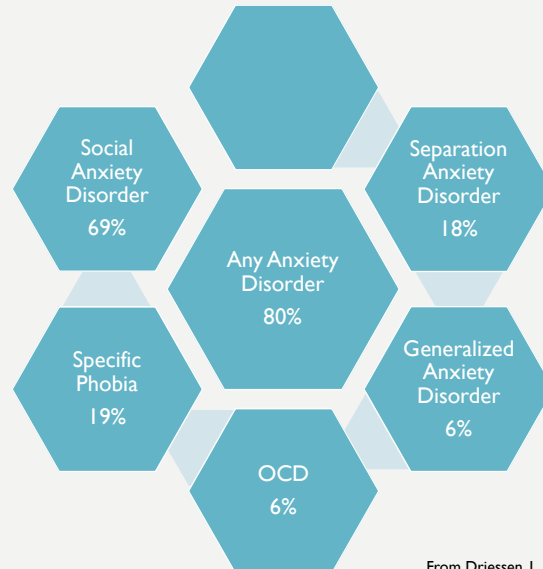
**THE GORDON AND
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AGENDA

- Classification
- Assessment
- Treatment
- Correlates
- Questions

CLASSIFICATION

ANXIETY IN CHILDREN WITH SM



From Driessen, J., Blom, J., Muris, P., Blashfield, R., Molendijk, M. (2020).

FEARS IN CHILDREN WITH SM

Social Fears – 67%

- Negative Reaction (35%)
- Social Evaluation (23%)
- Interactional Fears (12%)
- Observational Fears (12%)
- Showing Anxiety Symptoms (5%)

Fear of Mistakes – 40%

- Giving an incorrect answer
- Saying something wrong
- Deviating from expectations

Language Related Fears – 12%

- Related to pronunciation, grammar, etc.

Voice Related Fears – 7%

- Related to the sound of one's voice

From Vogel, F., Gensthaler, A., Stahl, J., & Schwenck, C. (2019).

FEAR-RELATED ASPECTS

Attentional Focus on Bodily Symptoms – 21%

- Focus on accelerated heartbeat, muscle tension, lump in throat, etc.

Attentional Focus on Thoughts – 12%

- Excessive rehearsal of speech, rumination about speaking

Overwhelming Anxiety – 7%

- Paralyzing anxiety, emptiness of mind

Avoidance Mechanism – 4%

- Silence to gain control or prevent negative consequences

From Vogel, F., Gensthaler, A., Stahl, J., & Schwenck, C. (2019).

ASSESSMENT

ASSESSMENT

SMQ

- Selective Mutism Questionnaire (2008)

FSSM

- Frankfurt Scale of Selective Mutism (2020)

SMQ

	Never	Seldom	Often	Almost Always
School				
When appropriate, my child talks to most peers at school.	0	1	2	3
When appropriate, my child asks his/her teacher questions.	0	1	2	3
Home/Family				
When appropriate, my child talks to family members in unfamiliar places.	0	1	2	3
When appropriate, my child talks to family members that don't live with him/her.	0	1	2	3
In Social Situations (Outside of School)				
When appropriate, my child speaks with other children who he/she does not know.	0	1	2	3
When appropriate, my child speaks to store clerks and/or waiters.	0	1	2	3

From Bergman, R. L., Keller, M., Piacentini, J., & Bergman, A. J. (2008).

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*Clinical Child Psychology and Psychiatry 25(4)***Table 1.** Baseline SMQ and SSQ scores in published selective mutism treatment studies.^a

Measure	Bergman et al. (2013) ^b <i>n</i> = 27, 48% girls, age 4–8	Oerbeck et al. (2014) <i>n</i> = 24, 65% girls, age 3–9	Lang et al. (2016) <i>n</i> = 24, 50% girls, age 3–13	Klein et al. (2017) <i>n</i> = 33, 62% girls, age 5–12	Catchpole et al. (2019) <i>n</i> = 31, 52% girls, age 4–10	Cornacchio et al. (2019) <i>n</i> = 29, 76% girls, age 5–9
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
SMQ at school	0.38 (0.35)	0.50 (0.40)	0.52 (0.99)	0.53 (0.68)	0.67 (0.56)	Missing
SMQ at home	1.73 (0.66)	1.65 (0.64)	1.63 (1.15)	2.04 (0.46)	1.88 (0.67)	1.90 (0.70)
SMQ in public	0.48 (0.67)	0.33 (0.43)	0.42 (0.83)	0.33 (0.37)	0.26 (0.34)	0.70 (0.60)
SMQ total	0.85 (0.38)	0.86 (0.35)	0.88 (1.15)	0.98 (0.39)	0.96 (0.44)	Missing
SSQ	0.64 (0.54)	0.55 (0.43)	Missing	Missing	0.61 (0.56)	1.10 (0.70)

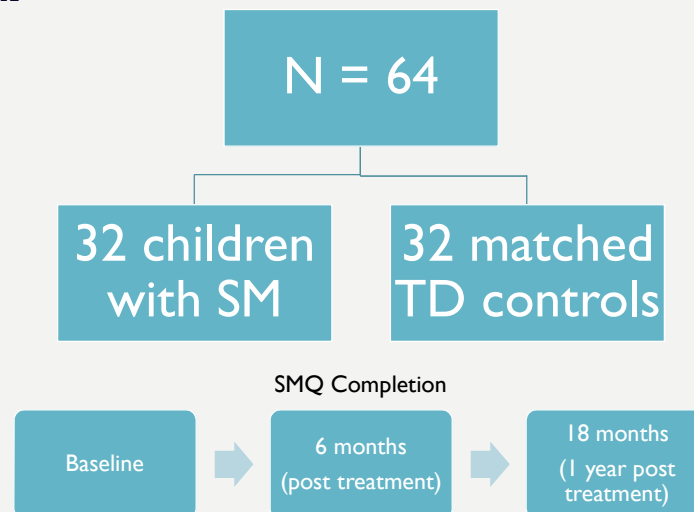
SD: standard deviation; SMQ: parent-rated Selective Mutism Questionnaire; SSQ: teacher-rated School Speech Questionnaire.

^aIncluded are studies with a reasonably large sample reporting data following the SMQ/SSQ scoring instructions.

^bReported here are baseline data on *n* = 27 (courtesy of Lindsey Bergman, as the Bergman 2013 study report data on *n* = 21).

From Oerbeck, B., Overgaard, K., Bergman, R., Pripp, A., & Kristensen, H. (2020).

THE SMQ: DATA FROM TD CHILDREN AND CHILDREN WITH SM



From Oerbeck, B., Overgaard, K., Bergman, R., Pripp, A., & Kristensen, H. (2020).

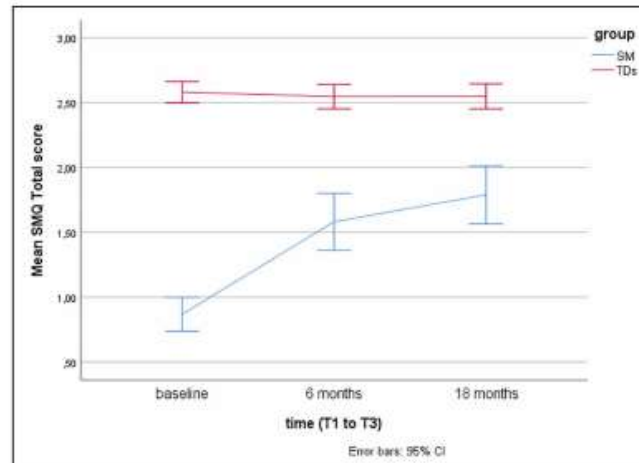
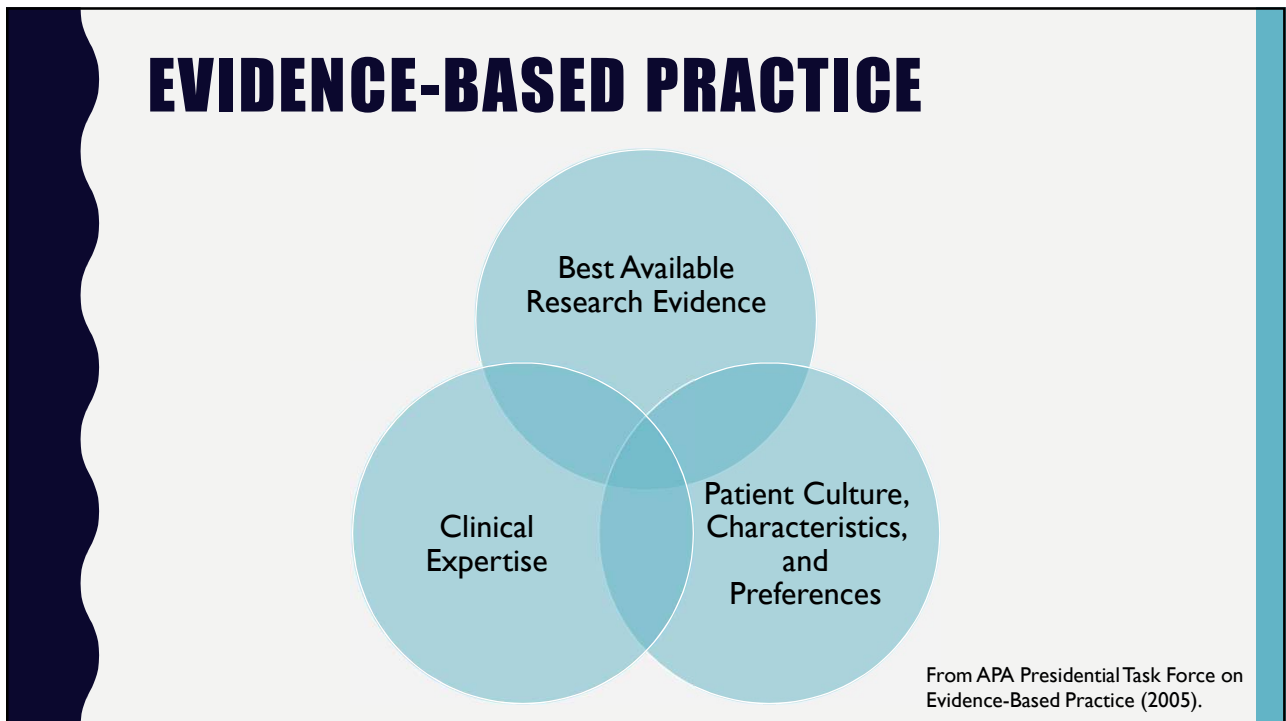


Figure 1. Mean Selective Mutism Questionnaire (SMQ) total scores over time (T1–T3) in typically developing children (TDs) and children treated for selective mutism (SM).

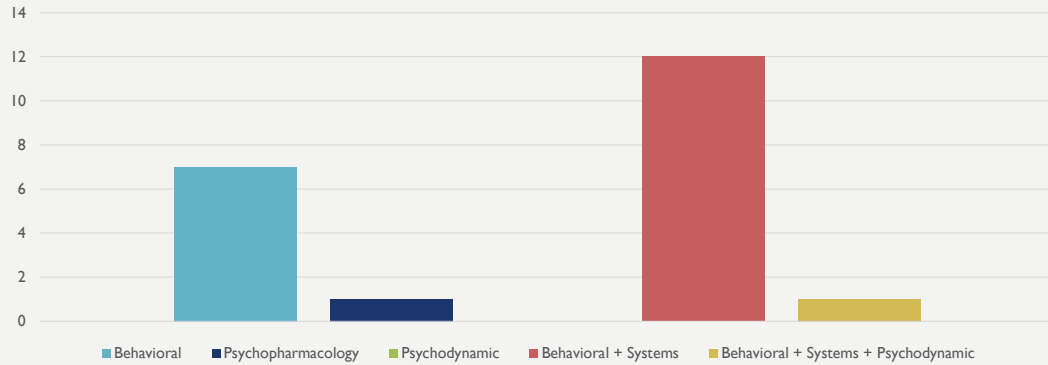
FSSM

- Diagnostic Scale (DS)
 - 10 questions focusing on core SM characteristics
 - Cut off scores differentiate between SM and Social Anxiety Disorder
- Severity Scale (SS)
 - Assesses speaking patterns in three domains (school, family, social)
- Three Age Adjusted Versions
 - 3-6 years
 - 7-11 years
 - 12-18 years

From Gensthaler, A., Dieter, J., Raisig, S., Hartman, B., Ligges, B., Kaess, M., Freitag, C., & Schwenck, C. (2020).

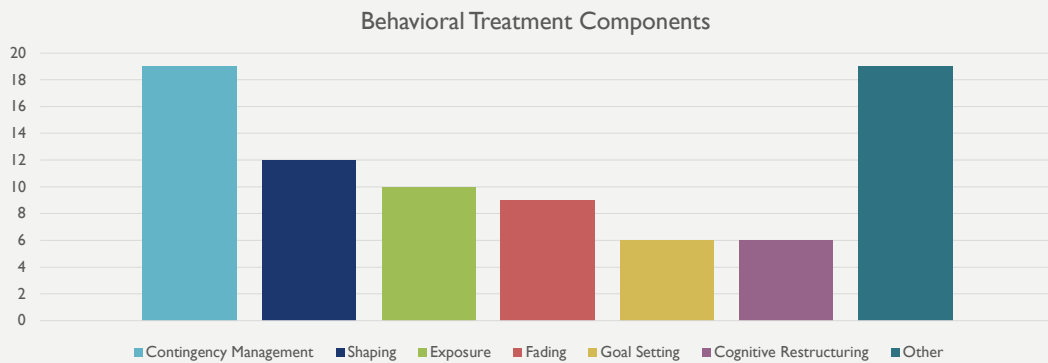


REINFORCE, SHAPE, EXPOSE, AND FADE



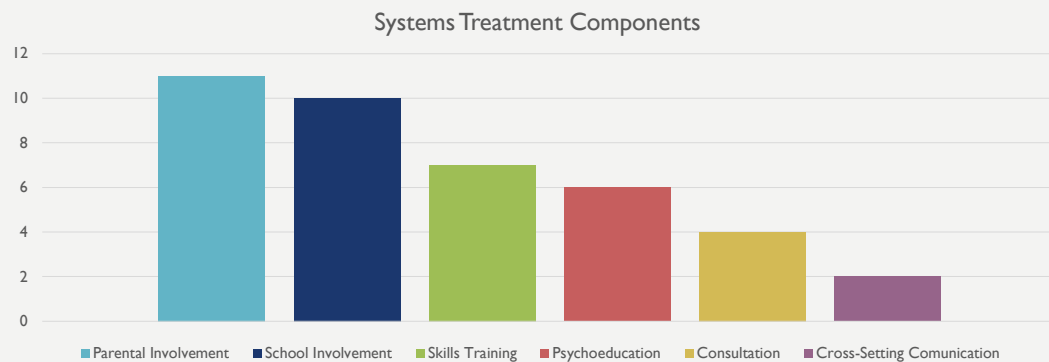
From Zakszeski, B., & Paul, G. (2016).

REINFORCE, SHAPE, EXPOSE, AND FADE



From Zakszeski, B., & Paul, G. (2016)

REINFORCE, SHAPE, EXPOSE, AND FADE...AND INCLUDE PARENTS



From Zakszeski, B., & Paul, G. (2016)

TREATMENT OUTCOME STUDIES

Authors	Date	Treatment
Randomized Controlled Trials		
Bergman, R. L., Gonzalez, A., Piacentini, J., & Keller, M.	2013	Integrated Behavioral Therapy
Oerbeck, B., Stein, M., Wentzel-Laursen, T., Langsrud, O., & Kristensen, H.	2014	Defocused Communication and Behavioral Techniques
Ooi, Y. P., Sung, S., ... Fund, D. S. S.	2016	Web-Based CBT (the "Meeky Mouse" program)
Esposito, M., Gimigliano, F., ... Carotenuti, M.	2017	Psychomotricity Treatment
Cornacchio, D., Furr, J., ... Comer, J.	2019	Intensive Group Behavioral Treatment
Open Trials		
Klein, E., Armstrong, S., Skira, K., & Gordon, J.	2017	Social Communication Anxiety Treatment (SCAT)
Catchpole, R., Young, A., Baer, S., & Salih, T.	2019	Parent-Child Interaction Therapy (PCIT)

TREATMENT COMPONENTS

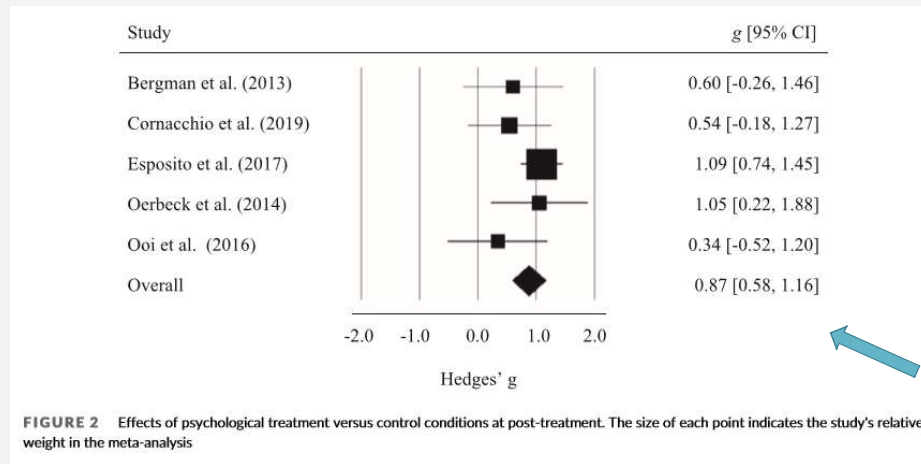
First Author	Number of Hours/ Weeks	Rapport Building	Parent Involvement	Shaping/ Fading	Gradual Exposure	In-Session Community Practice	Rewards/ Contingency Management	School Consultation/ Sessions	Between Session Practice	Anxiety Management Strategies
Bergman (2013)	20/24	X	X	X	X	X	X	X	X	
Oerbeck (2014)	21/12	X	X	X	X		X	X		
Ooi (2016)	14/14	X		X	X		X		X	X
Esposito (2017)	54/24									
Klein (2017)	3/9*	X	X	X	X		X		X	
Cornacchio (2019)	30/1	X	X	X	X	X	X	X		X
Catchpole (2019)	16/22	X	X	X	X	X	X	X	X	

A SUMMARY OF TREATMENT OUTCOMES

	SMQ/SSQ	SM Diagnosis	Other Anxiety Symptoms	Treatment Response
Bergman, et al. (2013)	SMQ and SSQ: SS pre/post gains; maintained at FU	ADIS-IV-P: 67% SM diagnosis free	SASC-P/T: SS improvement in social anxiety per parents, but not teachers	CGI-I: 75% (post); 88.9% (FU)
Oerbeck, et al. (2014)	SMQ and SSQ: SS pre/post gains; maintained at FU	ADIS-IV-P: 50% SM diagnosis free (1 yr FU); 71% diagnosis free (5 yr FU)	KSADS: 45.8% with a comorbid anxiety d/o (1 yr FU)	N/A
Ooi, et al. (2016)	SMQ: no effects	N/A	ACAS-C: no effects	CGI-I and CGI-S: SS improvement
Esposito, et al. (2017)	SMQ: SS pre/post gains	N/A	CBCL: SS improvement on Anxious/Depressed, Social Problems, Withdrawn, Internalizing, and Total scales	N/A
Klein, et al. (2017)	SMQ: SS pre/post gains	N/A	CBCL: SS improvement on Anxiety and Withdrawn scales	N/A
Cornacchio, et al. (2019)	SMQ: SS pre/post gains Social; no effects Home	ADIS-IV-P: 7% (post); 45.8% (FU) SM diagnosis free	ADIS-IV-P: SS reduction in IE rated social anxiety severity CBCL: no effects	CGI-I: 50% (post); 62.5% (FU)
Catchpole, et al. (2019)	SMQ: SS pre/post gains; maintained a FU SSQ: SS pre/post gains	N/A	N/A	Treatment Response: 18% non; 27.6% moderate; 58.6% robust

SS – statistically significant; FU – follow up; ADIS-IV-P – Anxiety Disorders Interview Schedule for DSM-IV, Parent Version; SASC-P/T – Social Anxiety Scale for Children-Parent/Teacher; KSADS – Schedule for Affective Disorders and Schizophrenia for Children; ACAS-C – Asian Children's Anxiety Scale – Caretaker; CBCL – Child Behavior Checklist; CGI-I/S – Clinician Global Impressions – Improvement/Severity; N/A – Not Assessed

A META-ANALYSIS OF RCTS



But what is Hedges' g ?
 A measure of effect size; tells the degree to which the experimental groups differed; demonstrates *practical* significance of findings

From Steains, S., Malouff, J., & Schutte, N. (2021).

EMPIRICALLY SUPPORTED TREATMENTS FOR SM

Criteria for Empirically Validated Treatments: Well-Established Treatments

- I. At least two good group design studies, conducted by different investigators, demonstrating efficacy in one or more of the following ways:
 - A. Superior to pill or psychological placebo or to another treatment.
 - B. Equivalent to an already established treatment in studies with adequate statistical power (about 30 per group; cf. Kazdin & Bass, 1989).

OR

- II. A large series of single case design studies demonstrating efficacy. These studies must have:
 - A. Used good experimental designs and
 - B. Compared the intervention to another treatment as in I.A.


FURTHER CRITERIA FOR BOTH I AND II:

- III. Studies must be conducted with treatment manuals.
- IV. Characteristics of the client samples must be clearly specified.

NONE!

Criteria for Empirically Validated Treatments: Probably Efficacious Treatments

- I. Two studies showing the treatment is more effective than a waiting-list control group.
- OR
- II. Two studies otherwise meeting the well-established treatment criteria I, III, and IV, but both are conducted by the same investigator. Or one good study demonstrating effectiveness by these same criteria.
- OR
- III. At least two good studies demonstrating effectiveness but flawed by heterogeneity of the client samples.
- OR
- IV. A small series of single case design studies otherwise meeting the well-established treatment criteria II, III, and IV.



CORRELATES

PREDICTORS OF TREATMENT RESPONSE

Age	Significant	Age	Not Significant
SMQ Initial Symptom Severity		Expressive and Receptive Language Skills	
Family Compliance		Duration of SM Symptoms	
Family History of SM		Comorbid Diagnoses	

ANXIETY PRODUCING PEOPLE...

Table 1 Categories of reported anxiety inducing person-characteristics

Category	Description	Examples	Participants who reported this characteristic*
Lack of distance	People who do not keep the distance, who get too close to the child physically; too directly address the child or demands and expectations that put pressure on the child; show little sensitivity to the child's need for distance	"Demanding people" "People who do not keep enough distance" "People who put her under pressure"	45%
Authority characteristics	Behavior and characteristics of a person usually perceived as authoritarian or aggressive or group belonging to authorities	"Strict persons" "Loud voice" "Dominant persons" "Medical doctors"	36%
Low familiarity	Strangers whom the child does not know and who are difficult for him to assess and unpredictable	"Strangers" "Not seen for a long time" "When it hardly knows the person"	33%
External characteristics	Externally visible or audible per se neutral characteristics of a person	"Old age" "Male" "Tall"	25%
Little child-focused	People who are not very focused on the needs of the child and show little sensitivity in the sense of too much distance or clumsy contact with the child, who do not try to get access to the child or who are insensitive to contact	"Closed people" "Unrelaxed and stiff" "Unfriendly"	22%

From Schwenck, C., Gentshler, A., Vogel, F., Pfefferman, A., Laerum, S., & Stahl, J. (2021).

...PLACES...

Table 2 Categories of reported anxiety inducing characteristics of place

Category	Description	Examples	Participants who reported this characteristic*
Unknown places	Unknown places that the child does not yet know or only knows a little, which are associated with uncertainty with regard to procedures and little behavioral safety	"Places that are new for my child" "If this is the first time anywhere" "Unknown place"	56%
Crowds	Places with a lot of people	"When there are too many people in one place" "Many people in little space" "Many people"	44%
Places with negative experience	Places where the child has already had negative experience or expects to meet or talk to certain people	"Medical practice" "Places where she is expected to speak" "Negative experience at this or similar place"	21%
High volume	Places with high volume or much noise	"Volume dominates" "Noisy environment" "Loud noises"	13%

From Schwenck, C., Gentshler, A., Vogel, F., Pfefferman, A., Laerum, S., & Stahl, J. (2021).

...AND THINGS...

Table 3 Categories of reported anxiety inducing characteristics of activity

Category	Description	Examples	Participants who reported this characteristic*
New activities	Activities that the child does not yet know, where he/she does not know what to expect and where the consequences are unforeseeable	"Everything that is new" "What he does not know and cannot judge" "The unknown activity"	47%
Motor activities	Motor activities to be learned, activities that require courage or could be potentially dangerous	"Climb up somewhere" "Movements/activities considered to be dangerous" "Swimming, skating and other activities where he could lose control"	27%
Failure	Activities that the child cannot do or is afraid of failing and has not yet mastered	"When she has to do something and is not sure if she can or can't do it" "Has previously had negative experiences with it" "When she feels overwhelmed"	25%
Focus of attention	Activities where the child could be the focus of attention	"When many people are watching" "When she is observed by strangers" "If she attracts the attention of others in the process"	22%
Activities with speech demands	Activities associated with talking to other people	"Something to talk about" "Speech required" "If you want her to speak in front of others"	19%

From Schwenck, C., Gentshaler, A., Vogel, F., Pfefferman, A., Laerum, S., & Stahl, J. (2021).

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THANK YOU!

CONTACT:
RMERSON@BU.EDU

**BOSTON
UNIVERSITY**