Manual: Frankfurt scale for the assessment of selective mutism (FSSM)

General information:

There are three development adapted versions of the FSSM: For preschool children aged 3-7 (FSSM 3-7), pupils aged 6-11 (FSSM 6-11) and for adolescents aged 12-18 (FSSM 12-18). Each questionnaire consists of a Diagnostic Scale (*General Speaking Behavior*) and a Severity Scale with the subscales *Speaking Behavior in School/Preschool, Speaking Behavior in Public* and *Speaking Behavior at Home*. The FSSM was evaluated in a total sample of N=334 children and adolescents between 3 and 18 years of age (Gensthaler, A., Dieter, J., Raisig, S., Hartmann, B., Ligges, M., Kaess, M., Freitag, C. M. & Schwenck, C. (2018). Evaluation of a Novel Parent-Rated Scale for Selective Mutism. Assessment, epub ahead of print. Doi: 10.1177/1073191118787328).

FSSM 3-7

The FSSM 3-7 was evaluated in a sample of n=107 preschool children (SM n=31, social anxiety n=17, healthy controls n=59).
The **diagnostic scale (DS, *General Speech Behaviour*)** consists of ten questions with dichotomous yes/no answers and allows an assessment of the existence of selective mutistic speech behaviour regardless of the severity of the impairment. The internal consistency is good with a Cronbach´s a = .90.
On the diagnostic scale, **healthy children** achieved an average total score of **1.3** points (SD = 1.5), **socially anxious children 4.3** points (SD = 1.5) and **selectively mutistic children 8.2** points (SD = 1.5). The respective differences are statistically significant (p < .01).
Diagnostically desirable is a high sensitivity and specificity, especially to distinguish selectively mutistic from exclusively socially anxious preschool children. Sensitivity and specificity were therefore determined for different cut-offs using the ROC curve: With a **cut-off of 7 for the diagnosis of SM** there is a specificity of 94% compared to the social anxiety of childhood with a sensitivity of only 84%. A cut-off of 6 should therefore be preferred for screening (sensitivity 97%, specificity 77% compared to SA).

The **severity scale (SS)** consists of 41 questions, which are answered on a 5-point Likert scale. It serves to record the impairment caused by mutistic behaviour in different social-communicative situations, taking into account the location, communication partners and aspects of content. A total value can be formed. The severity scale can be used to assess severity, to record individual speech patterns, to create exposure hierarchies and to monitor progress. The internal consistency is good with a Cronbach´s a = .98. There is a positive correlation (r=.48, p<.01) between the sum score of the SS and the clinical assessment of severity in the case of a diagnosed SM, employing the EKSM (Hartmann, 2005). The **mean of sum scores** for preschool children with **SM** was **89.9 (SD = 20.7).**

FSSM 6-11

FSSM 6-11 was evaluated in a sample of n=104 school children (SM n=32, social anxiety/social phobia (F93.2, F40.1) n=27, internalizing children (INT, anxiety disorders, depression) n=16, healthy controls n=29).

The **Diagnostic Scale (DS, *General Speech Behaviour*)** consists of ten questions with dichotomous yes/no answers and allows an assessment of the presence of selective mutistic speech independently of the severity of the impairment. The internal consistency is good with a Cronbach´s a = .92.

On the diagnostic scale, **healthy children** achieved an average total score of **1.2** points (SD = 2.0), **internalizing children 1.6** (SD = 2.2), **socially anxious/social phobic children 3.7 (**SD = 2.3) and **selectively mutistic children 8.7** (SD = 1.3). The respective differences are statistically significant (exception: INT versus healthy controls) (p < .01). Diagnostically desirable is a high sensitivity and specificity, especially to distinguish selectively mutistic from exclusively socially anxious/socially phobic children. Sensitivity and specificity were therefore determined for different cut-offs using the ROC curve: With a **cut-off of 7 for the diagnosis of SM** there is a specificity of 93% compared to the social anxiety of childhood/social phobia with a sensitivity of 94%.

The **severity scale (SS)** consists of 42 questions answered on a 5-point Likert scale. It serves to record the impairment caused by mutistic behaviour in different social-communicative situations, taking into account the location, communication partners and aspects of content. A total value can be formed. The SS can be used to assess severity, to record individual speech patterns, to create exposure hierarchies and to monitor progress. The internal consistency is good with a Cronbach´s a = .97.

There is a positive correlation (r=.72, p=.01) between the sum score of the SS and the clinical assessment of severity in the case of a diagnosed SM, employing the EKSM (Hartmann, 2005). The **mean of sum scores** for pupils with **SM** was **86,2 (SD = 29.6)**.

FSSM 12-18

FSSM 12-18 was evaluated in a sample of n=117 adolescents (SM n=28, social phobia (F40.1) n=29, internalizing adolescents (INT, anxiety disorders, depression) n=30, healthy controls n=30).

The **diagnostic scale (DS, *General Speech Behaviour*)** consists of ten questions with dichotomous yes/no answers and allows an assessment of the existence of selective mutistic speech behaviour irrespective of the severity of the impairment. The internal consistency is good with a Cronbach´s a = .90.

On the diagnostic scale, **healthy adolescents** achieved an average total score of **0.5** points (SD = 0.8), **internalizing** points of **1.60** (SD = 2.0), **social phobias** of **3.6** (SD = 2.5) and **selectively mutistic adolescents** of **8.2** (SD = 1.5). The respective differences are statistically significant (exception: INT versus healthy controls) (p < .01).

Diagnostically desirable is a high sensitivity and specificity, especially to distinguish selectively mutistic from exclusively sociophobic adolescents. Sensitivity and specificity were therefore determined for different cut-offs using the ROC curve: With a **cut-off of**

6 for the diagnosis of SM there is a specificity of 72% compared to social phobia with a sensitivity of 96%.

The **severity scale (SS)** consists of 42 questions answered on a 5-point Likert scale. It serves to record the impairment caused by mutistic behaviour in different social-communicative situations, taking into account location, communication partners and aspects of content. A total value can be formed The SS can be used to assess severity, to record individual speech patterns, to create exposure hierarchies and to monitor progress. The internal consistency is good with a Cronbach´s a = .98.
There is a positive correlation (r=.53, p=.01) between the sum score of the SS and the clinical assessment of severity in the case of a diagnosed SM, employing the EKSM (Hartmann, 2005). The **mean of sum scores** for adolescents with **SM** was **95.6 (SD =26.5)**.