## The Pediatric Vanderbilt Fatigue Scales-(VFS-Peds)

This document includes the following:

Vanderbilt Fatigue Scale- Child self-report version (VFS-C) Vanderbilt Fatigue Scale- Parent proxy-report version (VFS-P) Vanderbilt Fatigue Scale- Teacher proxy-report version (VFS-T)

# VANDERBILT FATIGUE SCALE-CHILDREN (VFS-C)

This scale is designed to assess listening-related fatigue in children aged 6-17 years.

**Instructions**: Sometimes people feel tired from listening and trying to understand. We would like to know how you feel when you listen in different places. Please read each sentence and mark the SINGLE response that best describes how often you feel or act that way in a typical WEEK. Do not skip any questions.

CHILD NAME:	DATE:	(	GRADE:	
			,	

	NEVER	RARELY	SOMETIMES	OFTEN	ALMOST ALWAYS
I want to "zone out" in very noisy places.	0	1	2	3	4
It is hard for me to concentrate when lots of people are talking.	0	1	2	3	4
My brain gets tired after listening all day.	0	1	2	3	4
I get worn out from listening at school.	0	1	2	3	4
Trying to listen at school stresses me out.	0	1	2	3	4
I use a lot of energy trying to listen in class.	0	1	2	3	4
I want to go to sleep after a long day of listening.	0	1	2	3	4
I give up trying to listen when I get tired.	0	1	2	3	4
I get so tired from listening that I don't want to do anything else.	0	1	2	3	4
I feel worn out when I have to listen carefully.	0	1	2	3	4

#### Total Score: \_\_\_\_\_

See page two for scoring and interpretation information.

#### **ADMINISTRATION GUIDELINES**

The VFS-C should be read, verbatim, to children aged 6-10 years. Children between aged 11-17 years can be given the option, if able, to read the scale independently or have the scale read to them.

When administering the scale, the examiner should conduct follow-up questioning when "Often" or "Almost Always" is selected for ANY scale item. For example, ask probing statements/questions, such as "give me an example of when this occurs" or "tell me more about this situation." The goal of this follow-up is to 1) determine the functional impact of the issue(s) on the child, and if significant, 2) identify situations and/or behaviors associated with the fatigue-related issue that could be targeted for counseling or intervention. Additional administration guidelines can be found in the VFS-Peds User Guide (see link below).

### **SUMMED SCORING & INTERPRETATION**

Total VFS-C Summed Score: To calculate a score, sum the responses to each item. Scores range from 0 to 40.

**Score Interpretation:** Cutoff criterion for identifying individuals whose VFS-C summed score, or number of "Often" or "Almost Always" responses, differ significantly from our standardization sample of typically developing children (i.e., children without hearing loss or other parent-reported additional disability).\*

Metric	Cutoff Criterion**	Management***
Frequency of Complaints	≥3 "Often" or "Almost Always" responses	Additional follow-up is warranted.
Summed Score	Summed score ≥ 27	Additional follow-up is warranted.

\*Information regarding cut-off criterion and the normative sample can be found in the VFS-Peds User Guide. \*\*VFS-C summed scores of  $\geq$  27 are at least one standard deviation above the mean of the normative sample. Selecting 3 or more "Often" or "Almost Always" responses is significantly different (at the 80% probability level; p=.2) than responses from the normative sample.

\*\*\*For suggestions regarding potential follow-up procedures see the "<u>Listening Fatigue Management</u> <u>Strategies</u>" handout located on the Resources page of the VFS website (<u>https://www.vumc.org/vfs</u>).

## ITEM RESPONSE THEORY (IRT) SCORING (FOR RESEARCH USE)

**IRT Scoring:** R code was developed to allow for IRT scoring of data sets (i.e., data from a group). The R code is not designed to be used to calculate scores for a single individual. As such, it may be most appropriate for research purposes. The R-code is available for free download from the following link: <u>https://osf.io/vpif5/</u>

## **ACCESSING THE VFS-PEDS AND USER GUIDE**

The VFS-Peds is comprised of three scales to assess listening-related fatigue in children. In addition to this form, there are two proxy reports—one for teachers (VFS-T) and one for parents (VFS-P). Each scale provides unique information and abnormal findings on ANY scale may warrant follow-up. All test forms and the VFS-Peds User Guide are freely available for clinical, educational, and research use at the following link: <a href="https://www.vumc.org/vfs/scales-and-user-guide">https://www.vumc.org/vfs/scales-and-user-guide</a>

#### RESOURCES

See the Resources page of the VFS website for additional information about listening-related fatigue as well as suggested intervention strategies. <u>https://www.vumc.org/vfs/vanderbilt-fatigue-scales</u>

## VANDERBILT FATIGUE SCALE-PARENT (VFS-P)

This scale is designed to assess listening-related fatigue in children aged 6-17 years via parent proxy.

Instructions: Sometimes communicating, or just trying to listen and understand, can be physically, mentally, or emotionally tiring for children. For each item below, select the SINGLE response that best describes how often your child experiences the following in a typical WEEK. Do not skip any questions.

CHILD NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

MENTAL FATIGUE	NEVER	RARELY	SOMETIMES	OFTEN	ALMOST ALWAYS
My child gets frustrated when it is difficult to hear.	0	1	2	3	4
My child prefers to be alone after listening for a long time.	0	1	2	3	4
My child shuts down after listening for a long time.	0	1	2	3	4
Listening takes a lot of effort for my child.	0	1	2	3	4
My child gets tired of listening by the end of the day.	0	1	2	3	4
My child shuts down if he/she becomes frustrated from listening.	0	1	2	3	4
My child "gives up" in difficult listening situations.	0	1	2	3	4
PHYSICAL FATIGUE	NEVER	RARELY	SOMETIMES	OFTEN	ALMOST ALWAYS
My child needs time to relax after school.	0	1	2	3	4
My child is so tired that he/she lays down to rest.	0	1	2	3	4
My child seems drained at the end of the day.	0	1	2	3	4
My child is more tired during the week than on weekends.	0	1	2	3	4
My child needs to relax after a tiring day of listening.	0	1	2	3	4

Mental Fatigue Subscale Score: \_\_\_\_

Physical Fatigue Subscale Score: \_\_\_\_\_

See page two for scoring and interpretation information.

### **ADMINISTRATION, SUMMED SCORING & INTERPRETATION**

When administering the scale, the examiner should conduct follow-up questioning when "Often" or "Almost Always" is selected for ANY scale item. For example, ask probing statements/questions, such as "give me an example of when this occurs" or "tell me more about this situation." The goal of this follow-up is to 1) determine the functional impact of the issue(s) on the child, and if significant, 2) identify situations and/or behaviors associated with the fatigue-related issue that could be targeted for counseling or intervention. Additional administration guidelines can be found in the VFS-Peds User Guide (see link below).

**VFS-P Summed Scores:** The VFS-P provides two subscale scores: mental fatigue and physical fatigue. **Mental Fatigue Subscale Score:** To calculate a score, simply sum the responses to the items in the mental fatigue section (7 questions total). Scores can range from 0 to 28.

**Physical Fatigue Subscale Score:** To calculate a score, simply sum the responses to the items in the physical fatigue section (5 questions total). Scores can range from 0 to 20.

**Score Interpretation:** Cutoff criterion for identifying individuals whose VFS-P subscale scores, or number of "Often" or "Almost Always" responses, differ significantly from our standardization sample of typically developing children (i.e., children without hearing loss or other parent-reported additional disability).\*

Metric	Cutoff Criterion**		Cutoff Criterion**		Management***
Frequency of	≥3 "Often" or "Almost		Additional follow-up is warranted.*		
Complaints	Always" responses		Additional follow-up is warranted.		
Summed Score	Mental Physical				
	≥15	≥13	Additional follow-up is warranted.*		

\*Information regarding cut-off criterion and the normative sample can be found in the VFS-Peds User Guide. \*\*VFS-P Mental & Physical summed scores of ≥ 15 or 13, respectively are at least one standard deviation above the mean of the normative sample. Selecting 3 (across all 12 items) or more "Often" or "Almost Always" responses is significantly different (at the 80% probability level; p=.2) than responses from the normative sample.

\*\*\*For suggestions regarding potential follow-up procedures see the "<u>Listening Fatigue Management</u> <u>Strategies</u>" handout located on the Resources page of the VFS website (<u>https://www.vumc.org/vfs</u>).

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## ACCESSING THE VFS-PEDS AND USER GUIDE

The VFS-Peds is comprised of three scales to assess listening-related fatigue in children. In addition to the VFS-P, there are two additional scales—one for teachers (VFS-T) and one for children (VFS-C). Each scale provides unique information and abnormal findings on ANY scale may warrant follow-up. All test forms and the VFS-Peds User Guide are freely available for clinical, educational, and research use at the following link: <u>https://www.vumc.org/vfs/scales-and-user-guide</u>

#### RESOURCES

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# VANDERBILT FATIGUE SCALE-TEACHER (VFS-T)

This scale is designed to assess listening-related fatigue in children aged 6-17 years via teacher proxy.

**Instructions**: Sometimes communicating, or just trying to listen and understand, can be physically, mentally, or emotionally tiring for children. For each item below, select the SINGLE response that best describes how often your student experiences the following in a typical WEEK. Do not skip any questions.

<b>STUDENT NAME:</b>	GRADE:	SCHOOL	
TEACHER NAME:	SUBJECT:	DATE:	

	NEVER	RARELY	SOMETIMES	OFTEN	ALMOST ALWAYS
The student will "check out" after long periods of listening.	0	1	2	3	4
The student seems less motivated to do work after listening for a long time.	0	1	2	3	4
The student stops participating when struggling to hear.	0	1	2	3	4
The student seems to get worn out from listening all day at school.	0	1	2	3	4
The student has trouble concentrating when it is difficult to hear.	0	1	2	3	4
The student seems to give up more easily when having trouble listening.	0	1	2	3	4
The student appears irritated when it is hard to hear and understand.	0	1	2	3	4
The student needs listening breaks in order to stay on task.	0	1	2	3	4

Total Score: \_\_\_\_\_

See page two for scoring and interpretation information.

#### **ADMINISTRATION GUIDELINES**

The VFS-T should be completed by an individual with direct knowledge of the child's classroom behaviors and function. In most cases, this will be the child's primary classroom teacher.

When administering the scale, the examiner should conduct follow-up questioning when "Often" or "Almost Always" is selected for ANY scale item. For example, ask probing statements/questions, such as "give me an example of when this occurs" or "tell me more about this situation." The goal of this follow-up is to 1) determine the functional impact of the issue(s) on the child, and if significant, 2) identify situations and/or behaviors associated with the fatigue-related issue that could be targeted for counseling or intervention. Additional administration guidelines can be found in the VFS-Peds User Guide (see link below).

### **SUMMED SCORING & INTERPRETATION**

Total VFS-T Summed Score: To calculate a score, sum the responses to each item. Scores range from 0 to 32.

**Score Interpretation:** Cutoff criterion for identifying individuals whose VFS-T summed score, or number of "Often" or "Almost Always" responses, differ significantly from our standardization sample of typically developing children (i.e., children without hearing loss or other parent-reported additional disability).\*

Metric Cutoff Criterion**		Management***
Frequency of Complaints	≥3 "Often" or "Almost Always" responses	Additional follow-up is warranted.*
Summed Score	Summed score ≥ 23	Additional follow-up is warranted.*

\*Information regarding cut-off criterion and the normative sample can be found in the VFS-Peds User Guide. \*\*VFS-T summed scores of  $\geq$  23 are at least one standard deviation above the mean of the normative sample. Selecting 3 or more "Often" or "Almost Always" responses is significantly different (at the 80% probability level; p=.2) than responses from the normative sample.

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