SELF-REGULATION

MEASURE DIFFERENCES

A brief guide to differences between the PROMIS® Early Childhood Parent-Report Self-Regulation – Flexibility and Self-Regulation – Frustration Tolerance instruments:

EARLY CHILDHOOD PARENT-REPORT
PROMIS Early Childhood Parent-Report Scale v1.0 – Self-Regulation – Flexibility 5a
PROMIS Early Childhood Parent-Report Scale v1.0 – Self-Regulation – Frustration Tolerance 6a

ABOUT SELF-REGULATION

The PROMIS Self-Regulation scales assess young children's flexibility (ability to adapt in response to environmental demands, changes, expectations) and frustration tolerance (recognition and regulation of emotions and behaviors in the service of one's goals, coping) via parent report. These scales are part of a suite of measures that evaluate the multifaceted construct of early childhood well-being. These scales are universal rather than disease-specific. Both scales assess self-regulation over the past seven days.

Self-regulation instruments are available for parents reporting on their young child (ages 1-5 years).

INTRODUCTION TO ASSESSMENT OPTIONS

There is one administration option for assessing self-regulation: <u>fixed length scales</u>. No computer adaptive test (CAT) is available. When administering a scale, instruct respondents to answer all of the items (i.e., questions or statements) presented.

VERSION DIFFERENCES

Some PROMIS domains have multiple versions of instruments (i.e., v1.0, v1.1, v2.0). Generally, **it is recommended that you use the most recent version available which can be identified as the instrument with the highest version number.** In most cases, an instrument that has a decimal increase (v1.0 to v1.1) retains the same item-level parameters as well as instrument reliability and validity. In cases where a version number increases by a whole number (e.g., v1.0 to v2.0), the changes to the instrument are more substantial.

There is currently only one version for each of the Engagement measures:
- PROMIS Early Childhood Parent-Report Scale v1.0: Self-Regulation – Flexibility
- PROMIS Early Childhood Parent-Report Scale v1.0: Self-Regulation – Frustration Tolerance

SELECTING A SELF-REGULATION INSTRUMENT

In selecting a Self-Regulation instrument, it is important to consider the specific content you wish to assess. Both scales can be used in the same study to evaluate two different components of young children's self-regulation – flexibility and frustration tolerance. If you are more interested in evaluating young children's ability to adapt in response to environmental demands, changes, and expectations, select Self-Regulation – Flexibility 5a; alternatively, if you are interested in assessing young children's recognition and regulation of emotions and behaviors in the service of their goals, select Self-Regulation – Frustration Tolerance 6a.

Early Childhood Parent-Report Versus Parent Proxy Report Measures
The PROMIS Early Childhood Parent-Report measures are for parents to report on their children ages 1 to 5. The PROMIS Parent Proxy measures are for parents to report on their children ages 5-17. There are currently no Parent Proxy Self-Regulation measures.

SCORES

For most PROMIS instruments, a score of 50 is the average for the United States general population with a standard deviation of 10 because calibration testing was performed on a large sample of the general population. You can read more about the calibration and centering samples on HealthMeasures.net (http://www.healthmeasures.net/score-and-interpret/interpret-scores/promis). The T-score is provided with an error term (Standard Error or SE). The Standard Error is a statistical measure of variance and represents the "margin of error" for the T-score.

Important: A higher PROMIS T-score represents more of the concept being measured. Thus, a child who has T-scores of 60 for the Self-Regulation – Flexibility or Self-Regulation – Frustration Tolerance scale is one standard deviation better (at flexibility or at managing frustration) than the general population.

STATISTICAL CHARACTERISTICS

There are four key features of the score for Self-Regulation – Flexibility 5a and Self-Regulation – Frustration Tolerance 6a:

- **Reliability**: The degree to which a measure is free of error. It can be estimated by the internal consistency of the responses to the measure, or by correlating total scores on the measure from two time points when there has been no true change in what is being measured (for z-scores, reliability = $1 - SE^2$).
- **Precision**: The consistency of the estimated score (reciprocal of error variance).
- **Information:** The precision of an item or multiple items at different levels of the underlying continuum (for z-scores, information = $1/SE^2$).
- **Standard Error (SE):** The possible range of the actual final score based upon the scaled T-score. For example, for Self-Regulation – Frustration Tolerance 6a, with a T-score of 52.74 and a SE of 3.69, the 95% confidence interval around the actual final score ranges from 45.5 to 60 (T-score $\pm$ (1.96*SE) = 52.74 $\pm$ 7.23 = 45.5 to 60).

The final score is represented by the T-score, a standardized score with a mean of 50 and a standard deviation (SD) of 10.

Figure 1 (Self-Regulation – Flexibility 5a) and Figure 2 (Self-Regulation – Frustration Tolerance 6a), the dotted horizontal line represents a 0.70 degree of internal consistency reliability typically regarded as sufficient for an accurate individual score. The shaded blue region marks the range of the scale where measurement precision is comparable to the reliability of .70 for the form. Both figures also tell us where on the scale the forms are most informative based upon the T-score.

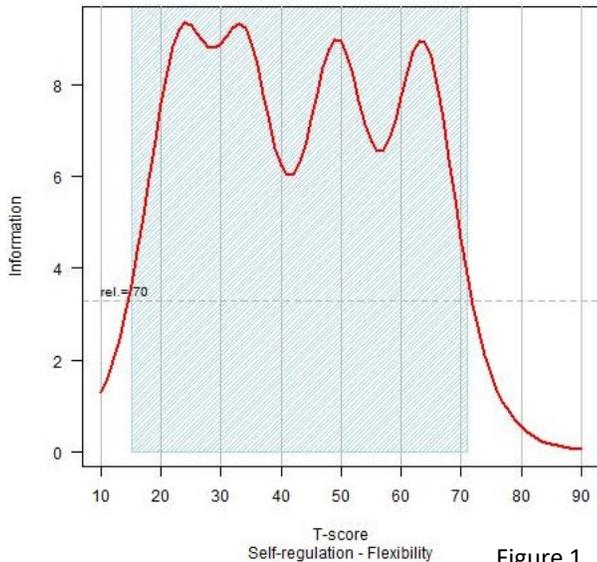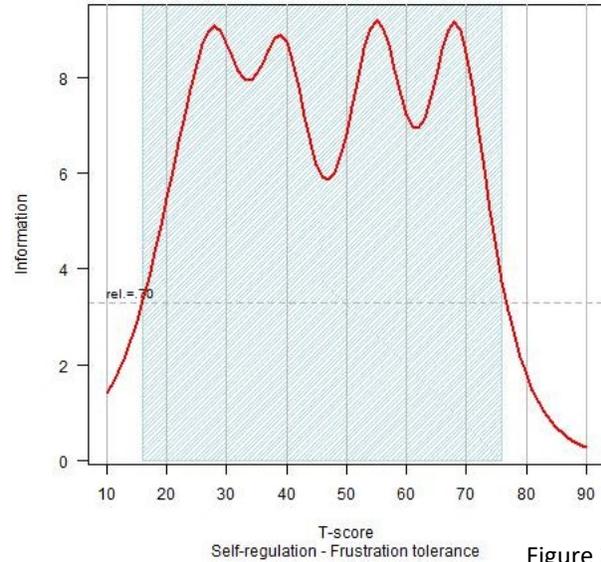More information is available at HealthMeasures.net.

Figure 1

Figure 2

PREVIEW OF SAMPLE ITEM

Figure 3 is an excerpt from the paper version of the PROMIS Early Childhood Parent-Report Scale v1.0 – Self-Regulation – Flexibility 5a form. Figure 4 is an excerpt from the paper version of the PROMIS Early Childhood Parent-Report Scale v1.0 – Self-Regulation – Frustration Tolerance 6a form.

In the past 7 days

		Never	Rarely	Sometimes	Often	Always
selfreg_ec1	My child made transitions easily	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
selfreg_ec2	My child accepted suggestions for alternative ways of doing something	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Figure 3

In the past 7 days

		Never	Rarely	Sometimes	Often	Always
selfreg_ec6	My child could wait if asked, even if he/she really wanted to do something	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
selfreg_ec7	My child managed frustration well	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Figure 4

FREQUENTLY ASKED QUESTIONS (FAQs)

Q: I am interested in learning more. Where can I do that?
Review the HealthMeasures website at www.healthmeasures.net.

Q: Are these instruments available in other languages?
Yes! Look at the HealthMeasures website (http://www.healthmeasures.net/explore-measurement-systems/promis/intro-to-promis/available-translations/117-available-translations) for current information on PROMIS translations.

Q: Can I make my own short form?
Yes, custom short forms can be made by selecting any items from an item bank. This can be scored using the Scoring Service (https://www.assessmentcenter.net/ac_scoringservice).