## Outcome Domain:

Social Role Participation and Social Competence

### Domain Description and Relevance in TBI:

“Participation is defined by the World Health Organization (WHO) as “involvement in life situations”, and commonly includes engagement in endeavors within one’s community. TBI affects many areas of participation including work/ productive activity, recreation and leisure pursuits, and social/ family role function.” – Wilde et al 2010

Table CDE Classification by Type of TBI Study and Relevant Population for Recommended Social Role Participation and Social Competence Outcome Measures.

| Outcome Measure Name | Relevant TBI Population | Acute Hospitalized | Moderate/ Severe Rehabilitation | Concussion/ Mild TBI | Epidemiology |
| --- | --- | --- | --- | --- | --- |
| Child and Adolescent Scale of Participation (CASP) | Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |
| Child Behavior Checklist: Social Competence Scale | Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |
| Craig Handicap and Assessment Reporting Technique (CHART-SF) | Adult | Supplemental | Basic | Supplemental | Supplemental |
| Participation Assessment with Recombined Tools (PART) | Adult | Supplemental | Supplemental | Supplemental | Supplemental |
| Pediatric Evaluation of Disability Inventory (PEDI): Social Functioning Scale | Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |
| Pediatric Quality of Life Inventory: Social subscale | Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |
| Social Skills Rating Scale (SSRS) | Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |
| Strengths and Difficulties Questionnaire, Peer Relations and Prosocial Behavior subscales | Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |
| Vineland-II, Socialization scale | Pediatric | Supplemental | Supplemental | Supplemental | Supplemental |

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## Child and Adolescent Scale of Participation (CASP)

### DESCRIPTION

The CAPS is a parent/ guardian report that was designed to identify factors that influence a child’s participation in activities in multiple settings including home, school and community. The measure has 20-items which address social and leisure activities, school activities, and independent and daily living activities.

### PERMISSIBLE VALUES

Twenty items are rated on a 4-point Likert scale. A score on a 100-point scale is generated by summing the scores, dividing the sum by the sum of all applicable items, and multiplying by 100. Higher scores indicate greater age-expected participation. Subsection scores can also be determined.

### PROCEDURE

The CASP is completed by the parent/guardian and takes 10 to 15 minutes to complete.

### COMMENTS

The instrument is appropriate for use with children ages 3-21 years.

### RATIONALE

“The CASP has been used in studies with children and youth with TBI in the U.S. and worldwide.” – McCauley et al. 2012

### REFERENCES

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Elliott, S., Gresham, F., Freeman, T., and McCloskey, G. (1988). Teacher and observer ratings of children's social skills: Validation of the Social Skills Rating Scale. J Psychoeduc Assess 6, 152-161.

## Child Behavior Checklist: Social Competence Scale

### DESCRIPTION

The Child Behavior Checklist measures a child’s competencies by using their parent’s perception of their performance on three scales, which include activities, social and school. Separate forms for ages 1.5 to 5 years and 6 to 18 years, as well as separate forms to be filled out by the parent/caregiver or teacher, are available. Scores for three competence scales and a total competence score can be computed.

### PERMISSIBLE VALUES

Raw scores, *t* scores (M=50, SD=10), and percentiles are given based on test results. The value of *t* scores for each range varies depending on the scale; in some scales higher *t* scores are associated with normal functioning and on others lower *t* scores are associated with normal functioning.

### PROCEDURES

The CBCL can be completed independently by the caregiver or administered by a professional familiar with the CBCL manual. Test can be completed by paper/pencil, online, or on a scannable form. The entire test, which includes the school competence scale, lasts approximately 25-30 minutes. Skills commensurate with at least a Master’s degree level in psychology, social work, or special education are recommended for interpretation.

### COMMENTS

The CBCL has two sets of forms, for ages 1.5 to 5 and ages 6 to 18.

### REFERENCES

Achenbach, T. (1991). Manual for Child Behavior Checklist/ 4-18 and 1991 Profile. University of Vermont, Dept. of Psychiatry: Burlington, VT.

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## Craig Handicap and Assessment Reporting Technique (CHART-SF)

### DESCRIPTION

The CHART-SF contains 19 items. There are six subscales consisting of: Physical Independence, Cognitive Independence, Mobility, Occupation, Social Integration, and Economic Self-Sufficiency.

### PERMISSIBLE VALUES

Each subscale has a maximum score of 100 corresponding to the level of performance typical for a person without a disability. Subscale scores can be added to obtain a Total Score (maximum score 600).

### PROCEDURE

Information to complete the measure may be obtained from the individual of interest or knowledgeable proxy via paper and pencil or interview. Administration time is 7-8 minutes.

### COMMENTS

This measure may be used with adult individuals with GOS/GOSE scores of severe disability, moderate disability, or good recovery.

### RATIONALE

CHART-SF is easy to administer and has demonstrated good reliability and validity in the TBI population.

### REFERENCES

Whiteneck G, Charlifue S, Gerhart K, Overholser J, Richardson G. Quantifying handicap: a new measure of long-term rehabilitation outcomes. Arch Phys Med Rehabil 1992; 73:519-526.

## Participation Assessment with Recombined Tools (PART-O)

### DESCRIPTION

The PART-O consists of 24 items asking for the frequency that the person engages in various activities within the community. Scores have been standardized based on a population sample. Several scoring options have been examined, providing a total score and 3 subscale scores. A briefer 12-item version is currently being evaluated.

### PERMISSIBLE VALUES

Standardized z-scores generally range from -4 to +4, with 0 as the mean.

### PROCEDURE

Interview or paper/pencil with participant or proxy. Manual available. Administration time is 10-15 minutes.

### COMMENTS

The PART has been used with adolescents and adults with TBI as well as other sources of disability.

### RATIONALE

Developed by the TBI Model Systems, the PART combines the primary measures found in the literature on participation of persons with TBI, including: Community Integration Questionnaire, original and revised (Willer, et al., AJPMR,1994, 73(2):103; Johnson, et al.,, Archives PMR, 2005,86: 725); Participation Objective, Participation Subjective (Brown, et al., JHTR,1994,19(6): 459); Craig Handicap and Assessment Reporting Technique (Whiteneck, et al., Archives PMR,1992,73:519). Publication of psychometric characteristics expected in 2009/2010.

### REFERENCES

Traumatic Brain Injury Model Systems National Data and Statistical Center, Part-O Manual, October, 2007. [National Data and Statistical Center Traumatic Brain Injury Model Systems Link](http://www.tbindsc.org/)

## Pediatric Evaluation of Disability Inventory (PEDI): Social Functioning Scale

### DESCRIPTION

The PEDI is a descriptive measure of a child’s current functional capabilities performance and also tracks changes over time. The measure has three content areas: Self-care, Mobility and Social Function. The social functioning section includes 65 items pertaining to several domains including communication, problem-resolution, play with peers and objects and self-protection.

### PERMISSIBLE VALUES

Scores for the PEDI range between 0-100, with higher scores indicating a lesser degree of disability.

### PROCEDURES

The PEDI takes between 45 and 60 minutes to administer. Skills commensurate with at least a Master’s degree level in psychology, education, or related field are recommended for interpretation. The PEDI is a paper based instrument. The computerized PEDI-MCAT provides individual patient reports that summarize a patient’s functional status and provide a comparison of scores to the norm.

### COMMENTS

The PEDI™ is recommended for children in acute and rehabilitation settings and for post-discharge follow-up. The measure is appropriate for ages 6 months to 7 years.

### RATIONALE

The PEDI “has been used in many studies with children with TBI and other acquired brain injuries, and has established evidence of reliability, validity and responsiveness to change during inpatient rehabilitation and post-discharge follow-up.”- McCauley et al. 2012

### REFERENCES

Haley, S., Coster, W., Ludlow, L. H., JT, and Andrellos, P. (1992). Pediatric evaluation of disability inventory: development, standardization, and administration manual, version 1.0. Trustees of Boston University, Health and Disability Research Institute: Boston, MA.

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Dumas, H., Haley, S., Fragala, M., and Steva, B. (2001). Self-care recovery of children with brain injury: descriptive analysis using the Pediatric Evaluation of Disability Inventory (PEDI) functional classification levels. Phys Occup Ther Pediatr 21, 7-27.

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Wilde, E., Whiteneck, C., Bogner, J., Bushnik, T., Cifu, D., Dikmen, S., French, L., Giacino, J., Hart, T., Malec, J., Millis, S., Novack, T., Sherer, M., Tulsky, D., Vanderploeg, R., and von Steinbuechel, N. (2010). Recommendations for the use of common outcome measures in traumatic brain injury research. Arch Phys Med Rehabil 01(11), 1650-1660.

## Pediatric Quality of Life Inventory: Social subscale

### DESCRIPTION

The PedsQL is a 23-item measure that can be used to assess health-related quality of life in children. The measure includes items in the domains of physical, emotional, social and school functioning. Age-appropriate child forms are available between the ages of 5 and 18, and parent proxy forms can be used down to age 2. Respondents indicate how much each item has been a problem in the past month; responses for 8-18 year old children and for parents are rated on a 5-point Likert scale, while younger children rate their responses on a 3-point scale. A total score and two summary scores for physical health and psychosocial health can be calculated.

### PERMISSIBLE VALUES

The total score is on a scale from 1-100, with higher scores indicating a higher health-related quality of life. Summary scores and scores for each subscale are computed by averaging the component item responses, and range between 0-4.

### PROCEDURES

The test can be completed in under 5 minutes. Parents and children 8 years or older may self-administer the PedsQL or the administrator can read the instructions to the child.

### COMMENTS

The PedsQL is appropriate for children and adolescents ages 2-18 years.

### RATIONALE

“It has been used in pediatric TBI and has been translated into over 48 languages including Spanish.” – McCauley et al. 2012

### REFERENCES

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## Social Skills Rating Scale (SSRS)

### DESCRIPTION

The SSRS assesses social behaviors such as cooperation, empathy, assertion, self-control and responsibility by gathering information from the child, their parents and teachers. The Problems Behaviors Scale assesses hyperactivity, externalizing and internalizing behaviors, all of which could interfere with the development of social skills. A teacher report form measures academic functioning.

### PERMISSIBLE VALUES

Standard scores (M=100, SD=15) and percentile ranks are calculated from raw scale scores.

### PROCEDURE

Questionnaires are available for parents, teachers, and children. Administration time is 10 to 25 minutes. Individuals who are qualified to interpret this test would either be certified by a professional organization in the relevant area of assessment; have a master’s degree in psychology, education, or a related field with training in assessment; or have formal supervised training in the appropriate subject matter and the use of standardized assessments.

### COMMENTS

The instrument is appropriate for use with children ages 3-18 years.

### REFERENCES

Elliott, S., Gresham, F., Freeman, T., and McCloskey, G. (1988). Teacher and observer ratings of children's social skills: Validation of the Social Skills Rating Scale. J Psychoeduc Assess 6, 152-161.

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## Strengths and Difficulties Questionnaire (SDQ), Peer Relations and Pro-social Behavior Subscales

### DESCRIPTION

The SDQ is a screening measure for detecting behavior problems. There are multiple versions of the SDQ, depending on the age of the child, and the specific person completing the form (e.g. teacher/ parent, self-completion). The forms have between one and three of the following components:

1. All versions of the SDQ include 25-items pertaining to attributes and are divided into five sub-scales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behavior.
2. Extended versions of the SDQ have questions pertaining to whether the respondent thinks the child has a problem and further questions about chronicity, distress, social impairment and burden to others.
3. There are two follow-up questions for us after an intervention. The follow-up questions of the SDQ ask about the past one month, as opposed to the past six months or this school year, which is the reference period for the standard versions.

### PERMISSIBLE VALUES

Questions are answered on a 3-point Likert scale. The score for each scale is the sum of item scores, generating a scale score from 0-10. A total difficulties score (from scores for hyperactivity, emotional symptoms, conduct problems and peer problems) ranges from 0-40.

### PROCEDURE

May be completed by children 11-16, or by parents or teachers of children 4-16. It can be completed in about 5 minutes using paper and pencil.

### COMMENTS

For children ages 4 through 16 (11 through 16 for self-report).

### RATIONALE

“The SDQ is increasingly used in studies of TBI outside of the U.S., considerably shorter than the CBCL, and available without cost. Thus, it may afford a useful alternative for those seeking a less intensive and costly measure.” – McCauley et al. 2012

### REFERENCES

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## Vineland-II, Socialization Scale

### DESCRIPTION

The VABS-II measures personal and social skills needed in an individual’s everyday life. There are five domains: Communication, Daily Living Skills, Socialization, Motor Skills, and Maladaptive Behavior Index (optional domain). The Socialization scale includes the domains Interpersonal Relationships, Play and Leisure Time and Coping Skills. The measure includes four forms: survey interview, parent/ caregiver rating, expanded interview and teacher rating.

### PERMISSIBLE VALUES

Standard scores with mean = 100, SD = 15, percentile ranks, adaptive levels are provided for Domains and Adaptive Behavior Composite. Subdomains are scored with a V-scale score (mean= 15, SD = 3), adaptive levels, and age equivalents.

### PROCEDURE

Administration is by paper and pencil. The test takes between 20 and 60 minutes.

### COMMENTS

This instrument may be used from birth to 90 years.

### RATIONALE

“The VABS-II and the original VABS have established evidence of reliability and validity and have been used in many pediatric TBI studies primarily for studying long-term sequelae, family functioning, and school adaptation. The VABS-II can be used with a broad age range of individuals (infancy to 89 years) and test procedures (i.e., age range allows for establishing accurate basal level) and is useful when working with low cognitive functioning populations such as those with severe TBI.” - McCauley et al. 2012

### REFERENCES

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