

Outcome Measure	Children's Assessment of Participation and Enjoyment & Activities of Children (CAPE)
Sensitivity to Change	No
Population	Paediatric
Domain	Social Role Participation and Social Competence
Type of Measure	Interview / Clinician-rated
ICF-Code/s	d710-d729
Description	<p>The Children's Assessment of Participation and Enjoyment (CAPE) and the Preferences for Activities of Children (PAC) are two companion measures of children's participation. Both are self-report measures of children's participation in recreation and leisure activities outside of mandated school activities.</p> <p>The CAPE is a 55-item questionnaire designed to examine how children and youth participate in everyday activities outside of their school classes. The CAPE provides information about five dimensions of participation. This includes diversity (number of activities done), intensity (frequency of participation measured as a function of the number of possible activities within a category), and enjoyment of activities. It also provides information about the context in which children and youth participate in these activities (i.e., with whom and where they participate). The PAC taps into a sixth dimension of participation, i.e., children's preferences for involvement in each activity.</p> <p>There is a self-administered and interviewer-assisted version of each measure. The CAPE takes approximately 30-45 minutes to complete, depending on the number of activities the child does. The PAC takes generally 15-20 minutes to complete. Both measures are appropriate for children and youth (with and without disabilities) between 6 and 21 years of age.</p> <p>There are three levels of scoring for the CAPE and PAC:</p> <ol style="list-style-type: none"> 1) overall participation scores; 2) scores for two domains (formal and informal activities); and 3) scale scores for five types of activities (recreational, active physical, social, skill-based, self-improvement). <p>Scores can be computed for these levels for each of the five dimensions of participation obtained from the CAPE (i.e., diversity, intensity, enjoyment,</p>

	with whom and where) and for the preference dimension from the PAC.
Properties	<p>OVERVIEW AND USES</p> <p>Age: 6 to 21 years (with and without disabilities)</p> <p>Administration Setting: CAPE 30 – 45 minutes; PAC 15 – 20 minutes</p> <p>Administration Format: Self-administered and interviewer-assisted version of the questionnaire</p> <p>Scoring Option: The questionnaire takes approximately 30-45 minutes to complete, depending on the number of activities the child does. There are 3 levels of scoring for the CAPE: overall participation scores, scores for two domains (formal and informal activities), and scale scores for five types of activities (recreational, active physical, social, skill based, and self-improvement). Scores can be calculated for these levels for each of the 5 dimensions of participation obtained from the questionnaire (<u>diversity</u>, <u>intensity</u>, <u>enjoyment</u>, <u>with whom</u> and <u>where</u>).</p> <p><u>Diversity:</u> There is an overall diversity score ranging from 0-55 (due to the 55 total items), a range for the informal diversity score is 0-40 (due to the 40 informal items) and a range for the formal diversity score is 0-15 (due to 15 formal items). This subscale scale is scored individually 0 (meaning the child has not performed this activity) or 1 (meaning the child has participated in this type of activity). All the “1” scores are then added in the “scoring calculations” section to give you an overall range score from 0-55.</p> <p><u>Intensity:</u> refers to how often the child participates in the activity ranging from 1 (1 time in the past four months) to 7 (1 or more times a day.) There are 7 scoring options here. Each item is scored from 1-7 and added up to get a subtotal for items 1-21. There is a second subtotal for items 22-55. The two subtotals are added together to get a total score for intensity, this is then divided by 55 (due to the total number of items being scored) to give you an overall intensity score. For example items 1-21 are scored to 37, items 22-55 are scored to 45. These two numbers summed equals 82, which is then divided by 55 ($82/55 = 1.5$) overall intensity score.</p> <p><u>With Whom:</u> There are five responses options for with whom dimension on the CAPE: (1) alone, (2) with family, (3) with other relatives, (4) with friends, and (5) with others. The with whom score is calculated by adding together the with whom ratings of those items that the child does and dividing the number of items that the child does. The possible range of scores for this dimension is 1.0-5.0. There is a subtotal score items 1-21 and a subtotal score for items 22-55. For example subtotal score for items 1-21 is 25 and subtotal score for items 22-55 is 17. These two numbers</p>

summed is 42 and this is divided by the total number of items that child participates in (17), therefore $42/17 = 2.5$ overall with whom score.

Where: There are six responses for this category, therefore each item is scored from 1-6. The scoring options for the where dimension on the CAPE: (1) at home, (2) at a relative's home, (3) in your neighbourhood, (4) at school, (5) in your community, and (6) beyond your community. This score is calculated by adding together the where ratings of those items that the child participates in and dividing by the total number of items. The possible range of scores for this dimension are 1.0-6.0. For example, 14 (subtotal for items 1-21) + 24 (subtotal for items 22-55) = $38/17$ (total number of items) = 2.2 overall where score.

Enjoyment: There are five responses for this category, therefore each item is scored from 1-5. The scoring options for the enjoyment dimension of the CAPE: (1) not at all, (2) somewhat; sort of, (3) pretty much, (4) very much, and (5) love it. The enjoyment score is calculated by adding the enjoyment ratings of those items the child participates in and dividing it by the total number of items that the child completes. The overall score range for this dimension is from 1.0-5.0. Example, 37 (subtotal for items 1-21) + 27 (subtotal for items 22-55) = $64/17$ (total number of activities) = 3.8 overall enjoyment score.

The same 55 activities are then used in the PAC. The PAC breaks the items into five categories including: recreational activities, physical activities, social activities, skill-based activities, and self-improvement activities. Every PAC item IS scored based on preference.

Preference: The three responses include: (1) I would not like to do it all, (2) I would sort of like to do it, and (3) I would really like to do it. The preference score is calculated by summing the preference ratings and dividing by the total number of items. The divisor number depends on the number of items under each category (for example the recreational activity category has 12 items, so total score /12 = the preference score for rec. activities.). The overall preference score ranges from 1.0-3.0.

So each category is scored like the example above and the scores for all the five categories are added up to a total that is divided by the total number of items on the PAC (55). This gives the administerer an overall PAC score.

USES: Administer the CAPE to explore an individual's day-to-day participation for the purpose of intervention planning or measuring outcomes. The PAC may be used to assess an individual's preference for activities. Both measures are appropriate for clients with or without disabilities between the ages of 6 and 21 years.

- CAPE and PAC may be used independently or together
- Both tools can be used by either having the client complete the record form with assistance from the parent or caregiver, or by using the activity and category cards
- Activity types address recreational, physical, social, skill-based, and self-improvement
- Ideal for use as a pre and post indicator of the effectiveness of intervention in improving participation
- Allows the child to be an active participant in goal setting and intervention

Environment for Testing: In a setting that allows focus on individual patient with adequate lighting to ensure proper observation

Equipment and Materials Needed: Researcher needs to buy the CAPE Kit before administering.

Examiner Qualifications: Any clinician with expertise to observe/score include, but is not limited to a paediatrician, paediatric neurologist, paediatric nurse, paediatric developmental psychologist, paediatric physiatrist, paediatric intensivist, and/or paediatric respiratory therapist may be suitable for observation.

PSYCHOMETRIC CHARACTERISTICS

Reliability: This assessment uses internal consistency and test-retest reliability. The internal consistency is calculated using a Cronbach's Alpha which compares each item to the overall score and the other individual items. This assessment was completed on both the PAC and CAPE. The PAC scored better for the formal and informal domains. The overall PAC scores were .76 (formal) and .84(informal). The overall CAPE scores were .42 (formal) and .76 (informal). The test-retest scores were administered to three CAPE subscales including the diversity, intensity and enjoyment subscales. These scores were scored for overall participation in the three categories and then compared to the PAC scores for each of the five categories. The scores for diversity, intensity, and enjoyment ranged from .64-.86 indicating sufficient test-retest reliability.

Validity: The validity is related to test content and is based on the degree to which the items represent and relate to the construct being measured. For the CAPE, the correlations among activity types are low, ranging from .22 to .44. This means that the CAPE does not have strong validity. Correlations that have been reported as evidence of construct validity

	<p>were smaller in magnitude than expected (most falling in the 0.10 to 0.20 range); however, 70% of the significant correlations were predicted. For the PAC preference scores the range was low from .27-.55, with the highest found between skill-based activities and self-improvement activities at .55. This makes sense as self-development activities usually entail skill development.</p> <p>The CAPE / PAC are not looking to rule in or out conditions / diagnoses, therefore sensitivity and specificity are not available.</p>
<p>Advantages</p>	<ol style="list-style-type: none"> 1) The CAPE directly measures participation and does not confound participation with competence or amount of assistance; 2) Wide age range (6-21 years); 3) Used in clinically for diagnostic purposes; 4) This measure can be used to examine the influence of skill, support, and opportunity-based interventions on children's participation, as well as the influence of impairments and environmental factors. 5) The CAPE and PAC are designed to be user friendly for children and their parents or caregivers. 6) The CAPE / PAC provide a way to measure several dimensions of participation from a client-centered perspective. 7) This assessment can be used on both children with and without disabilities. This allows the CAPE / PAC to be an engaging tool to use with all types of clients. 8) This tool can be used any OT practice setting designed to provide interventions for children.
<p>Disadvantages</p>	<ol style="list-style-type: none"> 1) Needs to be filled by a clinician who knows the child; 2) Long: takes 15-20 minutes to complete; 3) Costly; 4) Administration depends on the child's ability to fill out a questionnaire. 5) The scoring is slightly limited for some categories and the categories could be more detailed to provide clearer evidence if the child really likes participating in activities or not.
<p>Additional Information</p>	<p>No additional training is required. The administerer should have high skill levels for interviewing children and the ability to establish a rapport with children and parents or caregivers. The administerer should have extensive</p>

	knowledge of the manual and score sheet to administer the CAPE and PAC.
Reviewers	Vicki Anderson Cathy Catroppa

References

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