

MANUAL FOR THE PAEDIATRIC CARE AND NEEDS SCALE Version 2 (PCANS-2)

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Acknowledgments

The Paediatric Care and Needs Scale (PCANS) measures support needs of children with acquired brain injury (ABI). This manual describes the administration, scoring and interpretation of the PCANS, along with the program of research that underpins its development. The research program was funded by the Lifetime Care and Support Authority of New South Wales, and we are appreciative of the continued support and enthusiasm of the Authority in use of the PCANS.

The PCANS studies were conducted over a number of years and completion of the work would not have been possible without the efforts of a number of people and long standing multi-centre collaborations. The initial stage of the PCANS was the development of item content for the PCANS and validating it on a group of people with ABI. The contributions of Dr Mary-Clare Waugh and Lindy Williams from Children's Hospital Westmead in Sydney, along with Skye Waddingham, from Sydney Children's Hospital, Sydney are warmly acknowledged. Stage 2, conducted in collaboration with Prof Vicki Anderson from the Royal Children's Hospital and Murdoch Childrens Research Institute in Melbourne, focused on collecting normative data. We are grateful to Vivienne Champness for her assistance with data collection, and acknowledge the support and encouragement of Jane Galvin and Anne Gordon at the Royal Children's Hospital and Murdoch Childrens Research Institute, Melbourne. In addition, the Victorian Neurotrauma Initiative is acknowledged through their support in the form of a fellowship (2009-2012) to Cheryl Soo. Stage 3 of the research saw the refinement of item content, based on normative data, resulting in the PCANS-2. This final version of the scale was then trialed by 22 paediatric clinicians in Sydney. The authors acknowledge the commitment of time and professional input in this process by the clinicians involved in the field testing and feedback workshops.

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Background and development

The Paediatric Care and Needs Scale (PCANS; Soo, Tate, Williams, Waddingham, Waugh, 2008) is designed to measure the type, extent and intensity of support needs of young people aged between 5 and 15 years who have an acquired brain injury. It is intended to be administered by health professionals with experience working in a rehabilitation setting with young people with acquired brain injury. The PCANS was derived from the adult Care and Needs Scale (CANS, Tate, 2004, see Appendix A), which is suitable for people who are 16 years of age and older.

Development of the adult CANS and its conceptual framework has been described elsewhere (Tate, 2004; 2010). In brief, the impetus to develop the CANS arose because there were no suitable scales that adequately measured the variety and extent of support needs experienced by people with traumatic brain injury. It was constructed in accordance with current conceptualisation underlying the International Classification of Functioning, Disability and Health (ICF; WHO, 2001). Items from the Needs Checklist (CANS Section 1) map to eight of the nine domains from the Activities/Participation component of the ICF (all domains except d1: learning and applying knowledge). The Support Levels (CANS Section 2) map to three of the five Environmental Factors: e1: products and technology, e3: supports and relationships, and e5: services, systems and policies. The Needs Checklist and Support Levels were derived from the author's clinical and research experience, along with the literature on published scales of disability and outcome. Various configurations of Support Levels were trialed with a group of 67 people with traumatic brain injury, the final version of eight levels being the most clinically informative. Research findings on the psychometric properties of the CANS are summarised in Tate (2010). It has now been extensively examined and shows excellent levels of inter-rater and test-retest reliability, along with substantial evidence supporting its criterion and construct validity (see Tate, 2004; Soo, Tate, Hopman, Forman, Secheny, Aird, Browne, Coulston, 2007; Soo, Tate, Aird, Allaous, Browne, Carr, Coulston, Diffley, Gurka, Hummell, 2010a).

Adapting the CANS for a younger age group was not straight-forward, and ultimately it was necessary to reconfigure the conceptual underpinnings, item content and scoring procedures to take account of developmental issues occurring for the intended age groups. The initial development process for the PCANS involved three distinct phases conducted over a 2-year period (see Soo *et al.* 2008 for review).

Preliminary work commenced with a small group of experienced clinicians examining the 24-item Needs Checklist from the CANS for its applicability to the paediatric group. Eight of the nine items from the section on Special (high level) Needs were configured into a single set and the continence item was relocated to the personal hygiene category. Three of the 24 items from the CANS were excluded from the PCANS: parenting, because (with rare exception) this does not apply to the paediatric group, along with informational and emotional supports, on the premise that all young people require informational and emotional supports. Other checklist categories were expanded (e.g. medication use was expanded to encompass health safety) or adapted to the paediatric group (e.g. the domestic area to focus on home activities). This resulted in 14 PCANS domains covering activities of daily living, instrumental activities of daily living and psychosocial functioning: 1. high level needs, 2. personal hygiene, 3. bathing/dressing, 4. food preparation, 5. shopping, 6. home activities, 7. health safety/medication use, 8. money management, 9. use of everyday devices, 10. transport/outdoor surfaces, 11. interpersonal relationships, 12. leisure, recreation and play, 13. school, and 14. employment.

In the next step, the content of published developmental scales and the authors' clinical experience were used to compile a list comprising more than 150 activities pertinent to the above domains. The list was hierarchically structured, based on the expected age of achievement of the activities. For example, in the CANS, a single item covers transport and outdoor surfaces, because the norm for adults is that all components of this cluster of activities can be completed independently. In the PCANS, however, this item contains eight distinct activities (ranging from getting in and out of a car, fastening seat belts through to using public transport to travel to unfamiliar places/complicated destinations), in which dependence, emerging independence or independence is expected, depending

on the child's age. For each PCANS item, an assessment of support needs was evaluated in the context of whether a child of a given age would be expected to have mastered developmentally partitioned activities representing that item. In compiling the list of developmentally appropriate activities, focus was placed on activities and participation rather than impairments, as well as those activities with direct relevance to sequelae of paediatric acquired brain injury.

Subsequently, a pilot study was conducted with a small group of parents of typically developing children (n=19, aged 5-18 years) who were asked whether supports were required for their child to complete each of the listed activities. On the basis of the results, items were revised (e.g. poorly worded items were rephrased) and administration procedures were streamlined (e.g. some activities were re-sequenced within the hierarchy). Additionally, a number of items were deleted because the activities were not directly related to having a support need (e.g. a number of leisure activities were more related to the particular interests of the young person rather than support need). This resulted in 130 activities nested within the domains of the CANS/PCANS Needs Checklist, which in turn can be classified within four broad areas: special needs, activities of daily living, instrumental activities of daily living, and psychosocial functioning.

In the final stage of development, the items were clustered into four age ranges: Form A: 5 to 7 years, Form B: 8 to 11 years, Form C: 12 to 14 years, Form D: 15 years. Within each age band, three levels of skill were identified for each activity (independence expected for age, emerging independence, and independence not expected for age). All four forms contain the same item set, however the number of activities where independence is expected varies. The 130-item PCANS was then subject to a validity study (Soo *et al.* 2008), and findings are summarized in a later section of this manual.

A normative study on the PCANS was subsequently conducted (Soo, Tate, Anderson, Waugh, 2010b) in which it was administered to the parents of 300 healthy and typically developing, young people aged 5 to 14 years (i.e. for Forms A, B and C), with n=30 participants in each chronological year from 5 to 14 years. In 2011, the normative data were used to recalibrate the PCANS and revise item content and sequencing. This resulted in a 105-item version (labeled PCANS-2) with 13 domains (Domain 14, Employment, was deleted due to low endorsement) which is described in this manual. Operational definitions for the 105 items of the PCANS-2 appear in Appendix B.

Subsequent to the Soo *et al.* 2010b study additional normative data were collected on a sample of 30 young people aged 15 years.

In 2011, a workshop was conducted by Soo and Tate on behalf of the Lifetime Care and Support Authority of New South Wales which educated a group of clinicians about the PCANS-2 and administration procedures. Following this workshop, the clinicians trialed the PCANS-2 in the clinical setting. Twelve completed assessments and feedback about administering and scoring the PCANS-2 were received. Soo and Tate then conducted a subsequent workshop with the clinicians, which included feedback about the field testing trial and discussion about the clinical issues in administering the PCANS-2. This information was used to further refine administration and scoring procedures. The clinicians' feedback also supported the PCANS-2 as a case management and reporting tool.

Scale description: overview

The PCANS-2 measures the type, extent and intensity of support needs for young people who have acquired brain injury. It is designed for young people (aged 5 to 15 years) at any stage in the recovery process, including inpatient rehabilitation in the early stages post-onset, as well as community living many years post-onset.

The CANS has been designed for people aged 16 years and older. In special circumstances where a young person aged 16 years or older experiences profound disability the PCANS-2 may be more appropriate than the CANS because it may be advantageous to have the detailed information on all 105 PCANS items, rather than the more abbreviated CANS.

The PCANS-2 contains 105 items covering the following 13 domains: (i) high level needs; (ii) personal hygiene; (iii) bathing/dressing; (iv) food preparation; (v) shopping; (vi) home activities; (vii) health, safety and medication use; (viii) money management; (ix) everyday devices; (x) transport and outdoor surfaces; (xi) interpersonal relationships; (xii) leisure, recreation and play; (xiii) school.

There are four forms of the PCANS-2 corresponding to different age groups (A: 5-7 years; B: 8-11 years; C: 12-14 years; D: 15 years; see Appendix C). Each form contains the same set of items, but the number of items administered differs among forms, depending on the young person's age. More specifically, normative data (see Soo *et al.* 2010b) were used to classify each of the PCANS-2 items into one of three levels, according to the young person's age band: independence is expected (IND), independence is emerging (EM), independence is not expected (NE). For each of the four forms, only those items for which independence is expected (IND) or emerging (EM) are administered. Accordingly:

Form A (5-7 years):	85/105 items are administered
Form B (8-11 years):	92/105 items are administered
Form C (12-14 years):	102/105 items are administered
Form D (15 years):	all 105 items are administered

For most items, two responses are recorded: (i) the extent of Physical Assistance (PA) supports required and (ii) the extent of Supervision (S) supports required. Both Physical Assistance and Supervision supports are rated on a 3-point scale:

- 0 = independent
- 1 = some supports
- 2 = a lot of supports

Administration, recording and scoring procedures

PART 1: Important information about administering the PCANS-2

The PCANS-2 is administered in an interview format with a respondent (usually the parent) who has current and detailed knowledge of the child's functioning in all 13 Domains sampled by the PCANS-2. Administration generally takes approximately 30 minutes. On occasion, some items may prompt a respondent to talk about other issues related to the particular item and when this occurs administration time may be increased. Sometimes respondents need to be redirected back to the items.

With a single exception¹, only those items for which independence is expected (IND) or emerging (EM) are administered. As noted this corresponds to 85 items for Form A (5-7 years), 92 items for Form B (8-11 years), 102 items for Form C (12-14 years) and all 105 items for Form D (15 years). The interviewer should ensure that the correct version of the PCANS-2 is being used each time it is administered, that is, version A for ages 5-7, version B for ages 8-11, version C for ages 12-14, and version D for 15 year olds.

Instructions for administering the PCANS-2 are provided on page 12.

Health professionals administering the PCANS-2 should use a guided interview approach, asking the respondent each of the relevant items from the PCANS-2. In most circumstances, the respondent's response is recorded without amendment. It is recognized, however, that there may be special circumstances when the interviewing health professional has detailed knowledge of the child's functioning over the preceding month that suggests a different response from that given by the respondent. In such a situation, the interviewer may use their clinical knowledge of the child to allocate the score which best reflects the child's current situation, even if it disagrees with the respondent's answer. In amending a respondent's response, it is important that (i) there are solid grounds on which such a change in response is made, and (ii) the interviewer provides substantiation for recording a response that differs from that which the respondent provided. Explanatory comments should be noted in the "Comments" section of the Record Form when the interviewer has allocated a different score to that of the respondent.

Administration Procedures:

Coding of Independence, Emerging Skill, or Not Expected for each activity item: Each activity item is coded "IND" = independent, "EM" = emerging skill, or "NE" = not expected. These codes have been derived from the normative data (see page 30 of the manual for criteria; normative data appears in Appendix D), and provide an indication as to whether the child is expected to have mastered that activity based on his/her age. The interviewer should only ask the respondent about those activity items labeled "IND" and "EM". For example, for a child aged 6 years (PCANS-2 form A), items 9 to 14 in

¹ For Form B (8-11 years) item 15 (period management, shaving (if appropriate)) is classified as NE (not expected) and hence is not administered. This classification was made in response to the decision rule adopted for the normative data study. Yet, it is recognised that some young people in this age band may have already commenced menstruation or shaving, and in this case the item should be administered and scored. The summary score sheet makes allowances for this additional item that may need to be administered and the scoring format is not affected. Similarly administration of this item in versions C and D may not be appropriate for children who have not yet commenced menstruation or shaving.

Domain II (Personal Hygiene) will be administered but item 15 will be omitted because it is NE (not expected).

For each item responses are recorded numerically in the two central columns of the recording form for Physical Assistance (PA) and Supervision (S). Items are rated with a 3-point scale:

- 0 = independent
- 1 = some supports
- 2 = a lot of supports

Exceptions: There are three exceptions to this recording format:

- 1) Three items from Domain I (High Level Needs): item 1 (tracheostomy management), item 2 (nasogastric/PEG feeding), and item 3 (bed mobility), use a 2-point (rather than the 3-point) response format for Physical Assistance (PA) and Supervision (S). Thus items 1, 2 and 3 are scored as follows:

0 = no support required

OR

2 = supports required

The reason for this dichotomous response format is the nature of these items (tracheostomy management, nasogastric/PEG feedings and bed mobility) which, by definition, require a lot of supports. See page 15 of this manual for further information on scoring items 1-3.

- 2) The 13 items (72-84) in Domain XI (Interpersonal Relationships) are not scored for Physical Assistance due to the inherent nature of these items. Thus scores are recorded only for Supervision supports. On rare occasions a child may require physical intervention with respect to challenging interpersonal behaviours. In this case, for example where a child may need restraint when they punch or kick another person, scoring for that behaviour occurs in item 5 (Harmful Behaviours) in Domain 1 (High Level Needs).
- 3) Item 42, "Independently seeking adult support and guidance when needed" is not scored for Physical Assistance. Due to the inherent nature of this item it is not appropriate to score the item for Physical Assistance.

Accordingly each item (except items 42 and items 72-84 as explained above) is scored for both Physical Assistance (PA) AND Supervision (S).

Physical Assistance (PA): Support considered Physical Assistance includes another person physically assisting with or performing an activity for the child. This includes a person performing the activity entirely or in part for the child, assisting physically with set-up for the activity, and/or physically assisting while the child does the activity. A response indicating that a child requires physical assistance for an item may be due to any number of reasons. If a child needs another person to assist with the item then the appropriate score should be recorded regardless of the reason that the physical assistance is required. For example, another person may have to physically assist with item 24 "Preparing simple snacks" because one child may have physical disability and so requires physical assistance to make a snack, whereas another child may require physical assistance to make a snack because he/she has cognitive or behavioural difficulties resulting in him/her forgetting appropriate sequencing.

Supervision (S): Support considered Supervision includes another person supervising or observing while the child does the activity, or providing reminders, encouragement or verbal prompts while the child performs the activity. The same approach should be taken with scoring Supervision as for scoring PA for each item. That is, if supervision is required it may be due to varying reasons. The cause may be due to physical difficulties and/or cognitive or behavioural reasons.

A note on equipment: If the child uses any equipment to perform an activity that does not necessarily indicate that they need support for that activity. The PCANS-2 score should reflect support, either physical and/or supervision, which is provided by another person. If a child uses a piece of adaptive equipment and is able to perform the task independently, he/she would not be considered to need support. However, if the child uses adaptive equipment but also needs supervision and/or physical assistance to complete the task then that needs to be reflected in the scoring.

Other influences on scores: The PCANS-2 is rated according to current functioning of the child as a whole, this includes the way in which the child functions in the context of a pre-existing or co-morbid condition. It is recognised that in some situations there are influences on a child's score other than the difficulties arising from their ABI. Factors vary but could include pre-existing conditions (e.g. developmental delay, mental health problems, learning difficulties, previous injuries), cultural beliefs or habits (e.g. eating with the hands), non-ABI factors occurring concurrently or since the ABI (e.g. spinal cord injury, multiple fractures). To indicate when such factors do influence the score there is a column on the right of the scoring area which is to be used in these instances. The following key is to be used:

C = cultural beliefs or habits

N = non-ABI factors such as fractures, spinal cord injury occurring concurrently to the ABI

Pre = factors existing prior to the ABI including health, medical, learning or developmental problems

O = other influences for example but not restricted to medical conditions occurring since the ABI, change in family circumstances

For any item where another factor influences the score the interviewer must write the appropriate letter in the "Other influences" column and additionally write an explanation of the factor on the front page of the score record form.

A note on administering the PCANS-2 with children with high care needs: It is recognised that for some children who have global and profound disability it may be insensitive to ask all of the applicable items in the PCANS-2.

A guide for the situation where this procedure may be applicable is children who score 2 for Physical Assistance in the following:

- i) items 1, 2 or 3
- ii) and/or item 6 (Communicating basic needs due to language impairments)
- iii) and/or item 7 (Eating)
- iv) and/or item 8 (Transfers/indoor mobility).

In this special situation the interviewer may choose not to administer all the items of the PCANS-2, BUT it is vital that all IND and EM items are still scored. A comment should be made in the "Comments" section that the score was deemed by the scorer. Care should be taken to ensure that all items are given due consideration for the particular person being assessed.

A note on administering the PCANS-2 with anyone 16 years and older: as indicated on page 7 of this manual the PCANS-2 may be used for a person aged 16 years and older who has profound disability where it may be advantageous to have the detailed information on all 105 PCANS-2 items rather than the more abbreviated CANS. By the same token the CANS may none-the-less be appropriate for profoundly disabled young people.

In the case where the PCANS-2 is administered with young people aged 16 years or older:

- Form D should be used for all those aged 15 years and over regardless of their level of functioning
- Note that there is no normative data for those aged 16 years and over
- There is no normative data for those aged 16 years and older hence no “Summary Score Form” is available.
- It is expected that adults in the general population would score as independent on the PCANS-2 therefore this level of function should be used as a guide in interpretation in this special circumstance.

PART 2: Administration Instructions

Introducing the questionnaire

First, the interviewer introduces the questionnaire by saying:

“The Paediatric Care and Needs Scale, known as the PCANS-2, is a questionnaire which will help inform us about the amount of care and support that [NAME] requires in day-to-day life. In this questionnaire, I will ask you about a range of activities that most children do every day. In particular, I would like to know how much support, if any, your child requires for each daily activity. Supports may be provided by a variety of people and resources including you the parent/caregiver, a family member, a teacher, a health care professional, an external service or other provider. By asking all these questions we will have a detailed understanding of the activities that [NAME] can do, as well as those activities which are more difficult.

“For each activity, I will ask you whether [NAME] requires supports and if so whether the support needed is physical assistance and also whether supervision is required. If [NAME] requires support for an activity I will also ask you how much support he/she requires, that is, whether he/she requires some supports or a lot of supports for that activity.

“If [NAME] requires supports for that activity, I would like you to indicate whether he/she requires:

- *Physical assistance support which refers to someone else doing the activity or providing actual assistance. By this I mean someone to do the activity for [NAME] because he/she cannot do it himself/herself. Physical assistance could also be someone needing to provide hands-on assistance whilst the child does the activity, or physical assistance could be someone helping by setting-up the activity. Examples are that someone has to help by actually dressing [NAME], or by assisting just to do up buttons, cutting up food because [NAME] cannot do it, helping to get out items necessary to do homework.*

AND/OR

- *Supervision support which refers to someone providing verbal prompts, reminders, or supervision. Supervision could be that someone has to verbally prompt [NAME] to do up his/her laces, remind [NAME] what they need to take to school, keep an eye on [NAME] while he/she makes a snack for safety reasons.*

“Please provide this rating according to how things are for your child now (over the past month). There are quite a large number of questions in the scale, and it will take us about 30 minutes to work through. It is necessary to ask all of the questions, even though some questions may not apply in [NAME] situation. But we need to ask all the questions to make sure that we cover everything. If you are not sure whether or how much support is needed for a particular activity, just make your best guess.”

Note: the operational definitions of the 105 items appear in Appendix B of this manual. The interviewer should be familiar with them and refer to them if the respondent asks for clarification about what a particular item means.

Specific instructions for activity items

“The first section of the questionnaire is about high level (or special) needs”

Items in domain 1, Special (high level) needs, for items 1 to 3 ask:

“Does [NAME] require supports for tracheostomy management?” If the answer is no, record the score for PA and S as “0” then continue with the next item. If the answer is yes, the interviewer enters a “2” in the physical assistance and supervision columns. Continue on with item 2 (nasogastric/PEG feeding) and Item 3 (bed mobility) in the same way. (See page 15 of manual for special note regarding scores for items 1 - 3)

Items 4 to 8:

“Does [NAME] require supports for management of wandering behaviour?” If the answer is no, record the score as “0” for PA and S then continue with the next item. If the answer is yes, the interviewer asks: *Does [NAME] require physical assistance and/or supervision support for this activity?* [allow respondent to answer] and *“Would you say [NAME] requires some supports or a lot of supports for this activity?”* Record the scores for Physical Assistance and Supervision as “0” (none), “1” (some), or “2” (a lot), according to the response. Continue on with the remainder of the High Needs items in the same way.

Item 9 onwards:

“Next, I am going to cover personal hygiene activities. Does [NAME] require supports for continence of bladder and bowel during the day?” If the answer is no, record the score as “0” for PA and S, then continue with the next item. If the answer is yes, the interviewer asks: *“Does [NAME] require physical assistance and/or supervision support for this activity?”* [allow respondent to answer] and then say *“Would you say [NAME] requires some supports or a lot of supports for this activity?”* Record the scores for Physical Assistance and Supervision as “0” (none), “1” (some), or “2” (a lot), according to the response.

The interviewer continues to ask whether the child requires supports for each activity which is marked on the appropriate Score Form as IND or EM for each domain. The interviewer completes the scoring on the central columns of the Record Form corresponding to each item (See Figure 1 template for Personal Hygiene domain of PCANS-2 Form A), noting any other influences on the score in the right hand column.

Domain II. Personal hygiene:		PA	S	Comments	Other influences
Does your child require support (physical assistance or supervision) for the following?					
IND	9. Continence: bladder and bowel during day				
EM	10. Continence: bladder and bowel during night				
EM	11. Toileting (includes hygiene and clothes management)				
EM	12. Washing face/hands				
EM	13. Brushing or combing hair				
EM	14. Cleaning/brushing teeth				
NE	15. Period management, shaving (if appropriate)				
Total raw score: Domain II. Personal Hygiene					

Figure 1: Personal Hygiene domain of the PCANS-2 Form A (5 to 7 years).

“Comments” column

Every item that is IND or EM should be completed. If the child has had no opportunity to engage in a particular activity that is coded “IND” or “EM” then the respondent should be encouraged to make a best guess as to whether, in the event that the child did have an opportunity to engage in a particular activity, the child would have a support need. Additionally, in order to assist respondents in situations where it is difficult for them to make a response, it is also acceptable for the interviewer to ask the respondent to answer in the hypothetical or to use their judgment. In other situations, it is also acceptable to slightly adapt the question to suit the family circumstances while maintaining the intent of the item. For example, on item 27 (Domain IV: Food Preparation) if there is no microwave oven in the family home, then the interviewer may reframe the item according to its intent i.e. “is [NAME] able to warm/re-heat simple meals for eating?” Details of any item requiring such amendment and/or the respondent’s explanatory comments should be entered in the column labeled “Comments”.

If the respondent feels that they still cannot provide a response to a particular item then the interviewer can use clinical judgment to record a score. A comment noting that the clinician provided a particular score on an item should be made in the “Comments” section. In the rare case when the examiner is unable to make a judgment call there will be missing data and procedures when this occurs are explained on page 17

PART 3: Recording Responses to the PCANS-2

As indicated previously, only those items with “IND” or “EM” in the far left hand column of the Record Form are administered and scored. A rating is made as to whether the child is independent in each item applicable for the age band or requires support. A 3-point scale is used for most items: no supports/independent (score 0), some supports (score 1), and a lot of supports (score 2). For each item a score should be recorded for both Physical Assistance (PA) and Supervision (S). Note the exceptions which are listed on page 9.

Sometimes respondents find it difficult to decide whether an item should be rated as “some” or “a lot” of supports. It is not possible to make invariant decision rules, but one method to distinguish between these levels of supports is to think about them in terms of frequency or quality. Thus, the following is recommended:

- Frequency:
 - If a support for an item (e.g. item 82, monitoring own behaviour) is needed “always” or “often”, then a rating of “a lot of supports” (a score of “2”) is appropriate.
 - If a support for such an item is needed “sometimes” or “a little”, then a rating of “some supports” (a score of “1”) is appropriate.
- Quality:
 - If an item (e.g. item 82, monitoring own behaviour) is done “very poorly” or “fairly poorly”, then a rating of “a lot of supports” (a score of “2”) is appropriate.
 - If such an item is done “somewhat poorly” or “a little poorly”, then a rating of “some supports” (a score of “1”) is appropriate.

Any support which is “hands-on” by a person should be regarded as Physical Assistance.

In all these ratings, an inherent standard will be the comparison with children of the same age. For example, on Form A, item 82 (monitoring own behaviour) is classified as an emerging skill for this age band (5-7 years). Thus in using the “frequency” or “quality” framework to assist in deciding about level of support, the respondent would be encouraged to make a comparison of expectations of children of the same age.

Following the trial of the PCANS-2 by clinicians conducted in 2012 (referred to on page 6 of this manual) the clinicians were asked specifically whether they and/or respondents had any difficulty with “some” versus “a lot” of support responses. The clinicians in the trial reported that no difficulties were encountered.

Special Note Regarding Recording Scores For Items 1-3 only

If the respondent indicates that for one of these items the child requires physical support, hence PA=2, then the interviewer should record a score of 2 for Physical Assistance AND Supervision for that item by default, due to the nature of these items.

Example of Recording Responses:

An example of administration and recording of responses is illustrated in Figure 2 (on next page). Stephen is a 6 year old boy with traumatic brain injury who at the time of the TBI also sustained orthopaedic injuries resulting in restricted range of motion in his upper limbs. He is independent (requires no supports) for continence issues and toileting, requires some supervision in the form of reminders for washing his face/hands, some physical assistance and supervision for brushing his hair, and a lot of assistance for both physical assistance and supervision for brushing/cleaning his teeth due to his inability to execute the movements as a result of limitations caused by the reduced

range of movement in his upper limbs. Note that item 15 on shaving is not administered because independence in this activity is not expected (labeled “NE”) for his age.

Note that the notation “N” was included in the “Other Influences” column to indicate the contribution of non-ABI factors (in this case the orthopaedic injuries) influencing the score.

Domain II. Personal hygiene: Does your child require support (physical assistance or supervision) for the following?		PA	S	Comments	Other Influences
IND	9. Continence: bladder and bowel during day	0	0		
EM	10. Continence: bladder and bowel during night	0	0		
EM	11. Toileting (includes hygiene and clothes management)	0	0		
EM	12. Washing face/hands	0	1		
EM	13. Brushing or combing hair	1	1		
EM	14. Cleaning/brushing teeth	2	2		N
NE	15. Period management, shaving (if appropriate)	-	-		
Total raw score: Domain II. Personal Hygiene		3	4		

Figure 2: Completed section of the Personal Hygiene domain of the PCANS-2 Form A (5 to 7 years).

PART 4: Scoring Instructions

After administering the PCANS-2 the scores then need to be processed in order to calculate domain and summary scores. This processing is done on the PCANS-2 Score record Form, on the appropriate Scoring Work Sheet attached to each Score Record Form and on the Summary Score Form appropriate to the child's chronological age. Note that while the Score Record Forms are in age bands (A-D), there are 11 Summary Score Forms, one for each chronological age (5 - 15 years inclusive). A worked example appears on pages 19-20 of this manual. The Summary Score Forms are in this manual following each appropriate Score Record Form. Hence Summary Score Forms for ages 5, 6 and 7 follow Score Record Form A; for ages 8, 9, 10 and 11 follow Score Record Form B; for ages 12, 13 and 14 follow Score Record Form C; and for age 15 follows Score Record Form D.

All relevant items to the child's age band (i.e. those classified as IND or EM) are scored. All items are scored 0 (independent), 1 (some physical assistance/supervision), 2 (a lot of physical assistance/supervision) for Physical Assistance and Supervision, with three exceptions described in Part 1, page 9, (High level needs items 1, 2 and 3, Interpersonal Relationships items 72 - 84, and item 42). A score should be recorded in every allocated space on the Record Form.

Steps in the scoring process:

For the purposes of scoring you will need to have the (i) Score Record Form, (ii) the Scoring Work Sheet, and the (iii) Summary Score Form for the child's age.

- Step 1: On the Score Record Form calculate the "TOTAL RAW SCORE" for PA and S in each domain by adding the raw score for each item in the Domain.
- Step 2: Transfer the TOTAL RAW SCORE for PA and S in each domain from the Score Record Form to column 1 of the Scoring Work Sheet (attached to the appropriate Record Score Form A-D).
- Step 3: Check the Score Record Form to ensure the number of items administered in each domain concurs with the number in column 2 (*Number of applicable items*) on the Scoring Work Sheet. This should only vary for Domain II Personal Hygiene because of item 15 "Period management/shaving". If the number of items administered in any domain varied from the number in column 2 (i.e., the number of applicable items) you should record the actual number of items administered in column 3 on the Scoring Work Sheet.

In the event that a score for an item is missing, care must be taken to record in column 3 of the Scoring Work Sheet the correct number of items actually administered (hence scored).

For example, if the score for item 41 (Washing up dishes) is missing, the following steps are taken: Item 41 comes from Domain 6 Home activities which contains 6 items. For a 5 year old child all 6 of these items are administered, being the IND and EM items. But in the case where only 5 of the 6 items have a score recorded, the interviewer must record in column 3 that 5 items were administered. In this case in Step 4 (below) the sum of the 5 scored items in that Domain is divided by the number of items actually scored, rather than the number of items contained in the domain (in this case 5, rather than 6).

- Step 4: On the Scoring Work Sheet transfer the raw score from column 1 and the number of items actually administered (from column 2 and/or 3) to column 4. This is recorded as a fraction (for example 5/8 which means a raw score for that Domain of 5 for the 8 items administered).
- Step 5: Calculate this fraction correct to two decimal places and record that in column 5 (Mean score) for each domain. For example $5 \div 8 = 0.63$.

- Step 6: When all the mean scores have been calculated for each domain for PA and S add the means for domains I to XIII. This score then becomes the INTENSITY of support needs score (marked on the Scoring Work Sheet as score “A” for Physical Assistance and score “C” for Supervision). The range of Intensity of support needs for Physical Assistance Score (score “A”) must be 0-24, and the range of Intensity of support needs for Supervision Score (score “C”) must be 0-26.
- Step 7: Calculate the EXTENT of support needs score by dividing the INTENSITY score (A or C) by the number of domains scored. The number of Domains scored will always be 12 for Physical Assistance and 13 for Supervision. Thus the Extent of Support Needs for Physical Assistance score will be score A divided by 12, and is indicated on the Scoring Work Sheet as score “B”. The Extent of Support Needs score for Supervision score will be score C divided by 13 and is indicated on the Scoring Work Sheet as score “D”. The range of each of the Extent of Support Needs for Physical Assistance Score (score “B”) and of the Extent of Support Needs for Supervision Score (score “D”) will be 0 - 2.
- Step 8: Calculate the OVERALL INTENSITY of support needs for Physical Assistance and Supervision (score “E”) by adding Intensity of support needs for Physical Assistance (score A) and the Intensity of support needs for Supervision (score “C”). The range of score “E” is 0-50.
- Step 9: Calculate the OVERALL EXTENT of support needs for Physical Assistance and Supervision (score “F”) by adding the Extent of Support Needs for Physical Assistance score (“B”) and the Extent of Support Needs for Supervision score (“D”) and divide the sum by 2. The range of score “F” is 0 - 2.
- Step 10: From the Scoring Work Sheet transcribe the score references A, B, C, D, E and F that have been calculated to the “Summary Score Interpretation” table on the appropriate Summary Score Form for the child’s age (note that there are 11 separate Summary Score Forms, one for each age from 5 through to 15 years).
- Step 11: Transcribe the Domain Mean Score for PA and S of each Domain from the Scoring Work Sheet to the “Domain Score Interpretation” table on the Summary Score Form.

EXTENT of support needs scores (scores B, D and F) indicate how much support the child needs based on the metric used where 0 = independent, 1 = some supports needed, and 2 = a lot of supports needed.

INTENSITY of support needs scores (scores A, C and E) indicate scope and breadth of support needed across all the child’s day-to-day activities. This takes into account the extent and the number and types or varieties of support required.

Pages 19-20 show worked examples of the sample “Scoring Work Sheet” and the resulting “Summary Score Sheet”

Jane is a 6-year old girl who sustained a TBI two years ago as a result of a motor vehicle accident.

Scoring Work Sheet for Form A

Client name: JANE Age: 6 years

Domain	Column 1 Raw score (transfer from record form)	Column 2 Number of applicable items	Column 3 No. of items actually administered (if differs from column 2)	Column 4 Raw score (col. 1) divided by # of items actually administered (columns 2 or 3)	Column 5 Mean score (Type of support needs; possible score range 0-2) to 2decimal places
1. Physical Assistance					
I: High level	0	8		0 / 8	0
II: Personal hygiene	2	6		2 / 6	0.33
III: Bathing / dressing	3	7		3 / 7	0.43
IV: Food preparation	9	7		9 / 7	1.29
V: Shopping	2	2		2 / 2	1.00
VI: Home activities	9	6		9 / 6	1.50
VII: Health, safety & meds	7	5		7 / 5	1.40
VIII: Money management	7	4		7 / 4	1.75
IX: Everyday devices	2	4		2 / 4	0.50
X: Transport & outdoors	6	6		6 / 6	1.00
XI: Relationships	Not scored				
XII: Leisure, rec & play	9	7		9 / 7	1.29
XIII: School	7	10		7 / 10	0.7
	Intensity of support needs for Physical Assistance score (sum of scores in Column 5; possible score range 0-24)				= 11.19 (A)
	Extent of support needs for Physical Assistance score [mean of: Intensity total (A) ÷ number of domains(n=12)] (possible score range 0-2) = 11.19/12				= 0.93 (B)
2. Supervision					
I: High level	1	8		1 / 8	0.13
II: Personal hygiene	4	6		4 / 6	0.67
III: Bathing / dressing	7	7		7 / 7	1.00
IV: Food preparation	11	7		11 / 7	1.57
V: Shopping	3	2		3 / 2	1.50
VI: Home activities	11	6		11 / 6	1.83
VII: Health, safety & meds	11	6		11 / 6	1.83
VIII: Money management	8	4		8 / 4	2.00
IX: Everyday devices	5	4		5 / 4	1.25
X: Transport & outdoors	7	6		7 / 6	1.17
XI: Relationships	12	12		12 / 12	1.00
XII: Leisure, rec & play	10	7		10 / 7	1.43
XIII: School	15	10		15 / 10	1.50
	Intensity of support needs for Supervision score (sum of scores in Column 5; possible score range 0-26)				= 16.88 (C)
	Extent of support needs for Supervision score [mean of: Intensity total (C) ÷ number of domains(n=13)] (possible score range 0-2) = 16.88/13				= 1.30 (D)
	Overall Intensity of support needs for Physical Assistance + Supervision (A + C) = 11.19 + 16.88 (sum of above scores; possible score range 0-50)				= 28.07 (E)
	Overall Extent of support needs for Physical Assistance + Supervision score (B + D) ÷ 2 = 0.93 + 1.30 = 2.23 ÷ 2 (possible score range 0-2)				= 1.12 (F)

Note: All calculations correct to 2 decimal places.

PCANS-2 Summary Score Form (6 year old)

Child's name: JANE

Date of assessment:

Assessed by:

School year: Year 1

MRN:

Summary Score Interpretation

Score	Score reference	Jane's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A	11.19	4.19	2.56	9.31	9.07	24
Extent of support: Physical assistance	B	0.93	0.35	0.21	0.77	0.76	2
Intensity of support: Supervision	C	16.88	7.16	1.95	11.06	11.44	26
Extent of support: Supervision	D	1.30	0.55	0.15	0.85	0.88	2
Overall intensity of support for PA and S	E	28.07	11.35	4.17	19.69	20.51	50
Overall extent of support for PA and S	F	1.12	0.45	0.17	0.79	0.82	2

Domain Score Interpretation

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Jane's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Jane's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
1	High level needs	0.00	-	-	-	-	0.13	-	-	-	-
2	Personal hygiene	0.33	0.22	0.26	0.74	1.17	0.67	0.52	0.31	1.14	1.17
3	Bathing/dressing	0.43	0.67	0.47	1.61	1.86	1.00	0.83	0.40	1.63	1.86
4	Food preparation activities	1.29	0.33	0.25	0.83	0.86	1.57	0.52	0.32	1.16	1.20
5	Shopping	1.00	0.26	0.42	1.10	1.00	1.50	0.30	0.52	1.34	2.00
6	Home activities	1.50	0.45	0.55	1.55	1.60	1.83	1.42	0.48	2.38*	2.00
7	Health, safety and medication use	1.40	0.16	0.23	0.62	0.80	1.83	0.43	0.24	0.91	1.00
8	Money management	1.75	0.69	0.68	2.05*	2.00	2.00	0.77	0.63	2.03*	2.00
9	Everyday devices	0.50	0.18	0.29	0.76	1.00	1.25	0.23	0.31	0.85	1.00
10	Transport and outdoor surfaces	1.00	0.36	0.33	1.02	1.00	1.17	0.63	0.41	1.45	1.33
11	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A	1.00	0.35	0.23	0.81	0.90
12	Leisure, recreation and play	1.29	0.26	0.29	0.84	0.83	1.43	0.38	0.28	0.94	1.00
13	School	0.70	0.48	0.38	1.24	1.30	1.50	0.77	0.37	1.51	1.71

*Note: this is the actual score that is 2 SD above the mean, but it exceeds the maximum score of 2

PART 5: Interpretation of PCANS-2 scores using the normative data

- Interpretation of Summary Scores:

Following the PCANS-2 interview and recording of the item scores, completion of the Scoring Work Sheet yields the following summary scores:

Score reference	PCANS-2 summary score
A	Intensity of support needs for Physical Assistance score
B	Extent of support needs for Physical Assistance score
C	Intensity of support needs for Supervision score
D	Extent of support needs for Supervision score
E	Overall Intensity of support needs for Physical Assistance and Supervision score
F	Overall Extent of support needs for Physical Assistance and Supervision score

In order to interpret the PCANS-2 summary scores, the child's scores are compared against the age-appropriate scores found in the normative table in Appendix D. The Summary Score Sheet for each age allows the interviewer to enter the child's score directly on the form (there are 11 forms, corresponding to each age from 5 through to 15 years; see pages 17-18 for instructions for score processing). As an aid to interpretation the Summary Score Form additionally has on it the following data for the Summary Scores and the Domain scores from the normative sample:

- the age mean
- the Standard Deviation
- the score for 2 Standard Deviations above the age mean

Below is a worked example showing how to interpret the PCANS-2 summary scores based on the available normative data.

Worked example: Jane

Jane is a 6-year old girl who sustained a TBI two years ago as a result of a motor vehicle accident. Her Scoring Work Sheet is shown on page 19. Page 20, the corresponding Summary Score Form, displays her PCANS-2 summary scores together with the corresponding scores for 6-year old children based on the normative sample.

Jane's PCANS-2 scores show she has considerable support needs which are above that of children her same age. All of Jane's summary scores are well above the mean for 6-year old children. Interpretation of scores may be based on units of standard deviations (SDs) the child's score lies from the Mean score for his/her age.

For example, for Jane's Overall Intensity of support needs for physical assistance and supervision score (Score E):

First, find the difference between Jane's score and the Mean score for her age.

$28.07 - 11.35 = 16.72$ (Jane's score is 16.72 points above the mean score).

Second, divide the resulting difference by the corresponding SD score. This indicates how much, as measured in units of SDs, Jane's score lies from the Mean score for her age.

$16.72/4.17 = 4.01$ (Jane's score is 4.01 SDs above the mean score).

Thus Jane's Score E is well above (i.e., over 2 SDs above) the mean score for 6-year old children.

Significant impairment is regarded as a score of 2 or more Standard Deviations beyond the mean.

Another method of reviewing Jane's scores is to compare her scores to the maximum score from the normative sample for her age. Inspection of her Summary Score Form reveals all of her summary scores are higher than the corresponding maximum score obtained by 6-year olds in the normative group. Thus, the pattern of summary scores suggests that Jane's support needs are over and above that which is expected for a typically developing 6-year old child.

In interpreting the PCANS-2 summary scores, it is advisable to examine the child's pattern of scores in this way; that is, in comparison to the Mean, SD and Maximum score for his or her age.

In addition to the above method for interpretation of the PCANS-2 based on the norms, the three extent of support needs scores (Score B, Score D and Score F) may be interpreted using the metric applied throughout the PCANS-2 record forms:

- 0 = Independent
- 1 = Some supports needed
- 2 = A lot of supports needed

For Jane, because her Overall Extent of support needs for physical assistance and supervision (F score) is 1.12 this indicates "some" supports are needed on an overall level.

- Interpretation of Domain Scores:

Similarly, in order to interpret the PCANS-2 domain scores, the child's scores are compared against the age-appropriate scores found in the normative table in Appendix D. Again, the Summary Score Form is available for the interviewer to enter the child's Domain scores with the normative data for the appropriate age contained on the Summary Score Form.

Interpretation of the PCANS-2 Domain Scores follows the same process as for the Summary Scores interpretation as outlined above.

- Type of Support Needed:

Another analysis possible from the scores in the PCANS-2 is to review the scores to determine whether a child needs predominantly Supervision, or Physical Assistance, or both Supervision and Physical Assistance. This is done by comparing the Summary Scores that relate to Physical Assistance (Summary Scores A and B) with the Summary Scores that relate to Supervision (Summary Scores C and D). Trends may be evident in the scores, for example, if the scores for PA are above the age norms whilst the scores for Supervision are below the age norms then this indicates that the child requires more PA than S. This analysis of the type of support needed can also be done at the Domain level, where scores might indicate which Domains require more PA, more S or both PA and S. In all analyses the age means and standard deviations should be used to draw conclusions.

For Jane, her Extent of support needs for Supervision (score D) is 1.30 (5 SDs above the age norm) whilst her Extent of support needs for Physical Assistance (score B) is 0.93 (2.8 SDs above the age norm), indicating that she has more needs in Supervision than Physical Assistance. A similar pattern exists in her Intensity scores, scores A and C. It must be noted that all her Summary Scores (A-F) are above the mean and the maximum scores for the normative data for her age.

Psychometric properties of the PCANS

Validating the PCANS

Soo, Tate, Williams, Waddingham and Waugh (2008) conducted a validation study of the PCANS in a sample of 32 children aged between 5 and 18 years recruited from the Brain Injury Rehabilitation Programmes of Sydney Children's Hospital (SCH, n=8) and the Children's Hospital at Westmead (CHW, n=24), Sydney, Australia.

- Participants were caregivers of children who satisfied the following criteria:
 - (1) a history of an ABI (e.g. encephalitis, stroke or hypoxia) or TBI where there was head trauma and loss of or altered consciousness as defined by Glasgow Coma Score (GCS), post-traumatic amnesia (PTA) or intra-cranial abnormalities on brain scan;
 - (2) aged between 5–18 years at time of the interview; and
 - (3) time post-discharge from hospital greater than 6 months.

Exclusion criteria were:

- (1) caregiver non-fluency in English and
 - (2) child history of psychiatric illness, developmental disability or pre-injury neurological disorder.
- The PCANS was validated against the following standardised questionnaires:
 - (1) Vineland Adaptive Behaviour Scales (VABS; Sparrow *et al.* 1984)
 - (2) Functional Independence Measure for Children (Wee-FIM; Braun *et al.* 1991)
 - (3) King's Outcome Scale for Childhood Head Injury (KOSCHI; Crouchman *et al.* 2001)
 - (4) Child Behaviour Checklist (CBCL; Achenbach *et al.* 2001)
 - Demographic and injury characteristics for the sample (n=32) are presented in Table 1.
 - NOTE that these data were collected on the original PCANS, although we believe that they will be applicable in general terms to the slightly amended PCANS-2.

Table 1. Demographic and injury characteristics for the sample (n=32)

	Median	Range
Age (years)	11.7	5.5 – 17.6
Age at onset (years)	5.3	0 – 14.2
Time post-onset (months)	60.4	8.7 – 206.9
	n	%
Sex		
Males	24	75.0
Females	8	25.0
Cause of injury		
Total – TBI	27	84.4
MVC	18	56.3
Fall	5	15.6
Other	4	12.5
Non-TBI	5	15.6
GCS ^a		
3-8	15	52.6
9-12	4	16.7
13-15	5	20.8

Note. MVC = Motor Vehicle Crash; GCS = Glasgow Coma Scale.

^a n=8 missing data.

- Median age at onset was 5.3 years and time post-onset was 60.4 months. The majority of the participants had sustained a TBI (n=84%). According to GSC score, where this information was available, the majority of injuries in the sample were severe.
- Evidence was found for concurrent validity. Table 2 presents results of Spearman's rank order correlation coefficients for VABS, Wee-FIM and KOSCHI scores with PCANS measures. All correlation coefficients for KOSCHI and VABS measures with PCANS support extent and intensity scores were statistically significant and moderate to strong ($r_s = -0.57$ to -0.77 , $p < 0.01$). Similarly, significant correlation coefficients of moderate to strong magnitude were found between Wee-FIM measures and the PCANS support intensity score ($r_s = -0.46$ to -0.69 , $p < 0.01$), with the one exception (Wee-FIM self-care measure at $r_s = -0.38$). Correlation coefficients for Wee-FIM measures with PCANS overall support and support extent were more variable ranging from $r_s = -0.23$ to -0.63 , with the lowest coefficients found for Wee-FIM against PCANS overall support items ($r_s = -0.23$ to $r_s = -0.32$).

Table 2. Spearman's rank correlation coefficients for PCANS scores with VABS, Wee-FIM and KOSCHI scores

	PCANS overall support	PCANS support extent	PCANS support integrity
VABS			
Communication	-0.39*	-0.63**	-0.66**
Daily living skills	-0.35	-0.68**	-0.72**
Socialisation	-0.47**	-0.66**	-0.72**
Adaptive behaviour composite (total)			
	-0.47**	-0.71**	-0.77**
Wee-FIM			
Self-care	-0.24	-0.31	-0.38*
Mobility	-0.23	-0.63**	-0.69**
Cognitive	-0.31	-0.39*	0.46**
Total	-0.32	-0.41*	-0.49**
KOSCHI			
	-0.32	-0.57**	-0.63**

Note. PCANS = Paediatric Care and Needs Scale; VABS = Vineland Adaptive Behaviour Scales; Wee-FIM = Functional Independence Measure for Children; KOSCHI = King's Outcome Scale of Childhood Head Injury.

* $p < 0.05$

** $p < 0.01$

- Convergent validity: Correlation coefficients for the four domains of the PCANS against the VABS and Wee-FIM measures are displayed in Table 3. In terms of convergent validity, statistically significant correlation coefficients which were of moderate to strong magnitude were found between the following: VABS daily living skills and PCANS ADL items ($r_s = -0.71$, $p < 0.01$), VABS daily living skills and PCANS IADL items ($r_s = -0.43$, $p < 0.05$), VABS socialisation and PCANS psychosocial items ($r_s = -0.64$, $p < 0.01$), and VABS communication and PCANS psychosocial items ($r_s = -0.48$, $p < 0.05$). Moderate to strong and significant correlations were also found between Wee-FIM self-care and PCANS ADL items ($r_s = -0.64$, $p < 0.01$) and between Wee-FIM mobility and PCANS ADL items ($r_s = -0.63$, $p < 0.01$).
- Divergent validity: Low and non-significant correlation coefficients between PCANS domains and unrelated constructs were found providing support for divergent validity (Table 3). These include coefficients for Wee-FIM self-care with the PCANS IADL items ($r_s = -0.11$) and Wee-FIM

self-care with PCANS psychosocial items ($r_s=-0.29$). Interestingly, a number of significant correlation coefficients of moderate to strong magnitude were found between VABS daily living and socialisation scores and PCANS domains. This is somewhat unexpected given these VABS domains are not directly related to a number of these PCANS domains; for example, VABS socialisation and PCANS ADL items ($r_s=0.59$, $p<0.01$).

Table 3. Spearman's rank correlation coefficients for PCANS intensity of support scores for high level needs, ADL, IADL, and psychosocial domains with VABS and Wee-FIM scales ($n=32$)

	PCANS special needs (e.g. tracheostomy management, bed mobility)	PCANS ADL (personal hygiene, bathing/dressing, simple food preparation)	PCANS IADL (shopping, home, health, money, everyday devices, transport)	PCANS psychosocial (interpersonal relationships, leisure, school)
VABS				
Communication	-0.31	-0.43*	-0.69**	-0.48**
Daily living skills	-0.70**	-0.71**	-0.43*	-0.62**
Socialisation	-0.54**	-0.59**	-0.55**	-0.64**
Wee-FIM				
Self-care	-0.59**	-0.64**	-0.11	-0.29
Mobility	-0.59**	-0.63**	-0.53**	-0.50**
Cognitive	-0.63**	-0.54**	0.19	-0.43**

Note. PCANS = Paediatric Care and Needs Scale; ADL = Activities of Daily Living; IADL = Instrumental Activities of Daily Living; VABS = Vineland Adaptive Behaviours Scales; Wee-FIM = Functional Independence Measure for Children.

* $p<0.05$

** $p<0.01$

- **Discriminant validity:** PCANS support extent and intensity scores were able to distinguish between sub-groups dichotomised by adaptive functioning and overall outcome. Table 4 presents data comparing PCANS scores between the dichotomised VABS and KOSCHI data. Lower scores on the PCANS represents lower support needs. Results of Mann-Whitney U tests indicated that compared to children with low functioning scores on the VABS ABC, those with high functioning scores had significantly lower PCANS extent and intensity scores ($p<0.01$). Similarly, children in the higher functioning KOSCHI group had significantly lower PCANS intensity scores ($p<0.01$) compared to the lower functioning group.

Table 4. Median (range) PCANS scores by VABS Adaptive Behaviour Composite (ABC) and KOSCHI groupings

	VABS ABC		Mann-Whitney U (z)	KOSCHI ^a		Mann-Whitney U (z)
	Median (range)			Median (range)		
	High functioning (n=16)	Low functioning (n=16)		Higher level functioning (n=20)	Lower level functioning (n=12)	
PCANS extent	5.5 (1 - 10)	9.0 (3 - 18)	-3.26**	6.50 (1 - 12)	10.00 (3 - 18)	-2.43*
PCANS intensity	6.0 (2 - 17)	16.5 (4 - 38)	-3.50**	8.00 (2 - 19)	19.00 (4 - 38)	-2.79**

Note. VABS = Vineland Adaptive Behaviour Scales; KOSCHI = King's Outcome Scale for Childhood Head Injury.

^a = KOSCHI higher level functioning group included GR + MD (b) categories and lower level functioning group includes MD (a) + SD categories.

* p<0.05

** p<0.01

- In summary, findings from this validation study showed support for the concurrent and construct validity of the PCANS.

Norming the PCANS

A normative study of the PCANS was conducted by Soo and colleagues (2010b) using a sample of typically developing children recruited from public schools in the metropolitan region of Melbourne, Australia.

- Participants were parent/caregivers of typically developing children who satisfied the following selection criteria:
 - (1) aged between 5 and 14 years at time of interview.
 - (2) no diagnosis of ABI, other neurological, developmental or behavioural disorder, or a significant medical condition.
- A sample of 300 parents was selectively recruited to represent 10 equal subgroups according to child's age at time of interview (n=30, aged between 5 years, 3 months and 14 years, 11 months). Efforts were also made to sample equal numbers of males and females within each age year.
- Descriptive and background data for the total normative sample (n=300) and for each age year (n=30) are displayed in Table 5. An approximately equal ratio of males and females for each age year was generally achieved, with the percentage of males for the majority of age groups falling between 43.3 to 56.7%.
- In terms of the "Like schools"² categories, 40.9% of children in the sample attended schools in Groups 1-3 ("less disadvantaged"), 29.7% children attended schools in Groups 4-6, and 29.4% of children attended schools in Groups 7-9 ("more disadvantaged"). A Kruskal-Wallis test revealed there were no significant differences in occupational skill level³ of the parents across the ten age-groups ($\chi^2=6.28$, $p>0.5$).
- The largest proportion of families interviewed had two children (44.3%), and the eldest child was the subject of the interview (42.0%) in the highest proportion of cases. Almost all parents interviewed were biological parents of the child (97% for the total group). The percentage of families who spoke a language other than English at home ranged from 16.7% to 33.3% across age groups.

Subsequent to the Soo et al (2010b) publication referred to above additional normative data were collected on 15 year old young people (n=30).

The data from both Soo et al (2010b) and the subsequent group of 15 year olds is presented in Appendix D Normative Data Tables and is used in the Summary Score Forms.

² The "Like schools" group categories (Department of Education and Early Childhood Development, 2003) classifies each public school in Melbourne into one of nine groups (from 9 = most disadvantaged to 1=least disadvantaged) according to the proportion of students attending the school who are in receipt of education maintenance allowance or youth allowance and speak a language other than English spoken at home.

³ Based on Australian Bureau of Statistics classification (Pink & Bascand, 2009)

Table 5. Descriptive data for normative sample according to child's age (n=300)

	Child's age (years)										Total
	5	6	7	8	9	10	11	12	13	14	
	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	
Sex											
Male	15 (50.0%)	13 (43.3%)	10 (33.3%)	17 (56.7%)	15 (50.0%)	13 (43.3%)	10 (33.3%)	17 (56.7%)	16 (53.3%)	13 (43.3%)	139 (46.3%)
Female	15 (50.0%)	17 (56.7%)	20 (66.7%)	13 (43.3%)	15 (50.0%)	17 (56.7%)	20 (66.7%)	13 (43.3%)	14 (46.7%)	17 (56.7%)	161 (53.7%)
Respondent											
Biological parent	30 (100%)	28 (93.3%)	30 (100%)	30 (100%)	29 (96.7%)	29 (96.7%)	28 (93.3%)	30 (100%)	30 (100%)	28 (93.3%)	292 (97.3%)
Step-parent	0	0	0	0	0	1 (3.3%)	1 (3.3%)	0	0	2 (6.7%)	4 (1.3%)
Adoptive parent	0	1 (3.3%)	0	0	1 (3.3%)	0	1 (3.3%)	0	0	0	3 (1.0%)
Grandparent	0	1 (3.3%)	0	0	0	0	0	0	0	0	1 (0.3%)
Occupation skill level											
- M (SD)#	1.67 (1.06)	1.82 (1.44)	2.10 (1.49)	1.75 (1.24)	1.89 (1.52)	2.07 (1.46)	1.79 (1.40)	2.00 (1.25)	1.79 (1.34)	2.22 (1.34)	1.91 (1.35)
'Like school' group \$											
1-3 ("less disadvantaged")	12 (40.0%)	11 (36.7%)	17 (56.7%)	15 (50.0%)	12 (40.0%)	14 (46.7%)	10 (33.3%)	10 (33.3%)	15 (55.6%)	5 (16.7%)	121 (40.9%)
4-6	10 (33.3%)	6 (20.0%)	6 (20.0%)	7 (23.3%)	8 (26.7%)	7 (23.3%)	11 (36.7%)	11 (36.7%)	7 (25.9%)	15 (50.0%)	88 (29.7%)
7-9 ("more disadvantaged")	8 (26.7%)	13 (43.3%)	7 (23.3%)	8 (26.7%)	10 (33.3%)	9 (30.3%)	9 (30.0%)	8 (27.6%)	5 (18.5%)	10 (33.3%)	87 (29.4%)

Table 5. Continued

	Child's age (years)										Total
	5	6	7	8	9	10	11	12	13	14	
	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	(n=30) n (%)	
No. children in family											
Only child	2 (6.7%)	3 (10.0%)	5 (16.7%)	1 (3.3%)	0	1 (3.3%)	2 (6.7%)	1 (3.3%)	3 (10.0%)	1 (3.3%)	19 (6.3%)
2	16 (53.3%)	16 (53.3%)	10 (33.3%)	10 (33.3%)	12 (40.0%)	14 (46.7%)	13 (43.3%)	14 (46.7%)	14 (46.7%)	14 (46.7%)	133 (44.3%)
3	12 (40.0%)	9 (30.0%)	10 (33.3%)	16 (53.3%)	13 (43.3%)	12 (40.0%)	7 (23.3%)	9 (30.0%)	6 (20.0%)	3 (10.0%)	97 (32.3%)
4	0	1 (3.3%)	3 (10.0%)	2 (6.7%)	3 (10.0%)	2 (6.7%)	6 (20.0%)	4 (13.3%)	4 (13.3%)	7 (23.3%)	32 (10.7%)
5	0	0	2 (6.7%)	1 (3.3%)	1 (3.3%)	1 (3.3%)	0	1 (3.3%)	2 (6.7%)	4 (13.3%)	12 (4.0%)
6 or more	0	1 (3.3%)	0	0	1 (3.3%)	0	2 (6.7%)	1 (3.3%)	1 (3.3%)	1 (3.3%)	7 (2.3%)
Birth order[^]											
Eldest	12 (42.9%)	15 (55.6%)	13 (52.0%)	14 (48.3%)	13 (43.3%)	10 (34.5%)	3 (10.7%)	13 (44.8%)	11 (40.7%)	14 (48.3%)	118 (42.0%)
Middle	6 (21.4%)	4 (14.8%)	5 (20.0%)	5 (17.2%)	5 (16.7%)	5 (17.2%)	11 (39.3%)	7 (24.1%)	6 (22.2%)	9 (31.0%)	63 (22.4%)
Youngest	10 (35.7%)	8 (29.6%)	7 (28.0%)	10 (34.5%)	12 (40.0%)	14 (48.3%)	14 (50.0%)	9 (31.0%)	10 (37.0%)	6 (20.7%)	100 (35.6%)
LOTE spoken at home											
	8 (26.7%)	10 (33.3%)	10 (33.3%)	7 (23.3%)	6 (20.0%)	10 (33.3%)	5 (16.7%)	5 (16.7%)	5 (16.7%)	6 (20.0%)	72 (24.0%)

Note. # Of the primary caregiver, based on ABS classifications; LOTE=Language other than English; \$Missing data for n=4; ^ excludes only child cases, n=19.

- Comparison of support needs scores for physical assistance versus supervision: As shown in Figure 4, Wilcoxon tests showed that support needs were significantly higher for supervision compared to physical assistance for activities in the majority of PCANS domains ($z = -3.79$ to -13.44 , $p < 0.01$). The exceptions to this pattern were for Home Activities, Shopping, Devices and Employment.

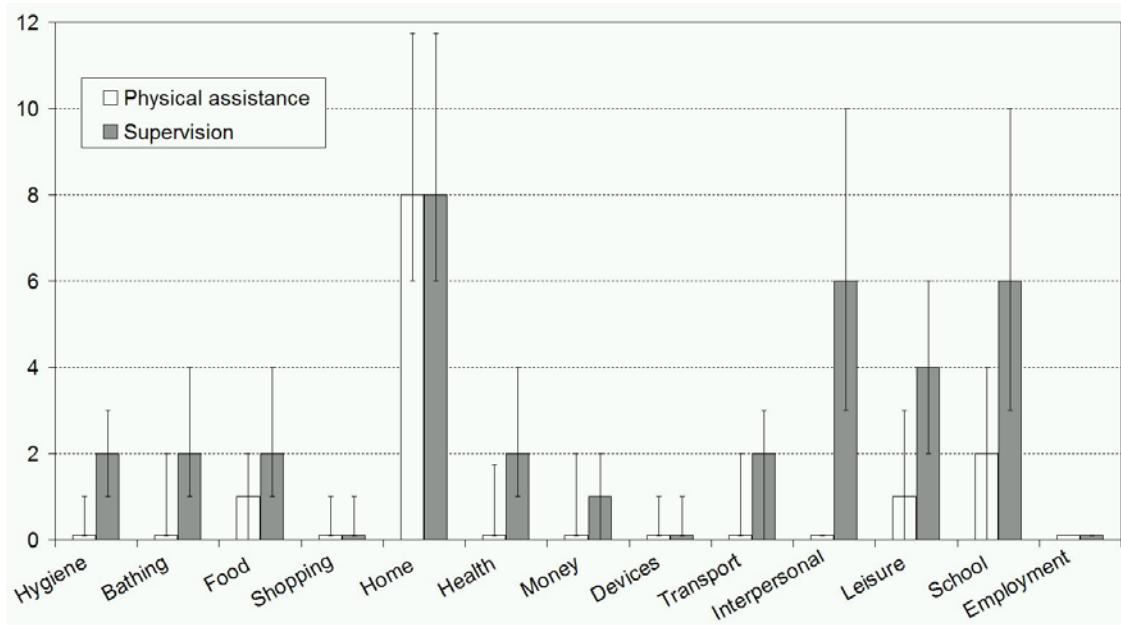


Figure 4: Physical assistance versus supervision support need scores for PCANS domains

From PCANS to PCANS-2

Following collection of the normative data redundant items and poorly performing items were deleted along with the Employment Domain because of low endorsement, resulting in the streamlined 105 item PCANS-2.

Classification of items as Independent (IND), Emerging (EM) and Not Expected (NE):

The PCANS-2 items were also re-classified as independent (IND), emerging (EM), and not expected (NE) based on the normative data. The following criteria were used⁴:

- If the percentage of “no support” ratings for the item was greater than or equal to 85% when the Physical Assistance scores for the appropriate age years of the PCANS age form (e.g. 5, 6, 7 year olds for PCANS A) were averaged, then the item was coded as “IND”. The same method was used for Supervision items.
- If the percentage of either “a lot” or “NA” ratings for the item was greater than or equal to 80% when the Physical assistance scores for the appropriate age years of the PCANS age form (e.g. 5, 6, 7 year olds for PCANS A) were averaged, then the item was coded “NE”. Again, the same method was used for Supervision items
- The item was coded “EM”, if neither of the above criteria (i or ii) were met.

The normative dataset was then recalibrated for the 105-item PCANS-2. Normative data for each of the eleven age groups (5 to 15 years) for the PCANS-2 is found in Appendix D.

⁴ Two items are exceptions. Items 72 and 73 were introduced after the normative data was obtained and appear as the first two items in the Interpersonal Relationships section. Normative data for both items were imputed as “independent” because the items are phrased in age-appropriate manner and so by definition independence is expected across all ages.

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Appendix A – CANS Record Form

Care and Needs Scale Tate (2003)		
Date:	Name:	Age:
MRN:	Assessed by:	
Instructions: Tick any of the care and support needs that apply (section 1), then circle the number in level that corresponds to length of time that can be left alone (section 2)		
Section 1: Type of care and support need		Section 2: Length of time that can be left alone
<p><i>Group A: CANS Levels 7, 6, 5 or 4: <u>Requires nursing care, surveillance for severe behavioural/cognitive disabilities, and/or assistance with or supervision for very basic ADLs:</u></i></p> <p><input type="checkbox"/> tracheostomy management <input type="checkbox"/> nasogastric/PEG feeding <input type="checkbox"/> bed mobility (e.g., turning) <input type="checkbox"/> wanders/gets lost <input type="checkbox"/> exhibits behaviours that have the potential to cause harm to self or others <input type="checkbox"/> has difficulty in communicating basic needs due to language impairments <input type="checkbox"/> continence <input type="checkbox"/> feeding <input type="checkbox"/> transfers/mobility (including stairs and indoor surfaces) <input type="checkbox"/> other: _____</p> <p><i>Group B: CANS Level 4: <u>Requires assistance, supervision, direction and/or cueing for basic ADLs:</u></i></p> <p><input type="checkbox"/> personal hygiene/toileting <input type="checkbox"/> bathing/dressing <input type="checkbox"/> simple food preparation <input type="checkbox"/> other: _____</p> <p><i>Group C: CANS Levels 4, 3, 2 or 1: <u>Requires assistance, supervision, direction and/or cueing for instrumental ADLs and/or social participation:</u></i></p> <p><input type="checkbox"/> shopping <input type="checkbox"/> housework/home maintenance <input type="checkbox"/> medication use <input type="checkbox"/> money management <input type="checkbox"/> everyday devices (e.g., telephone, television) <input type="checkbox"/> transport and outdoor surfaces <input type="checkbox"/> parenting skills <input type="checkbox"/> interpersonal relationships <input type="checkbox"/> leisure and recreation/play <input type="checkbox"/> employment/school <input type="checkbox"/> other: _____</p> <p><i>Group D: CANS Levels 3, 2 or 1: <u>Requires supports:</u></i></p> <p><input type="checkbox"/> informational supports (e.g., advice) <input type="checkbox"/> emotional supports <input type="checkbox"/> other: _____</p> <p><i>Group E: CANS Level 0: <u>Fully independent:</u></i></p> <p><input type="checkbox"/> Lives fully independently, with or without physical or other aids (e.g., hand rails, diary/notebooks), and allowing for the usual kinds of informational and emotional supports the average person uses in everyday living</p>	7 6 5 4 4 4 3 2 1 3 2 1 0	<p>Cannot be left alone - Needs nursing care, assistance and/or surveillance 24 hours per day</p> <p>Can be left alone for a few hours - Needs nursing care, assistance and/or surveillance 20-23 hours per day</p> <p>Can be left alone for part of the day, but not overnight - Needs nursing care, assistance, supervision and/or direction 12-19 hours per day</p> <p>Can be left alone for part of the day and overnight - Needs a person each day (up to 11 hours) for assistance, supervision direction and/or cueing for occupational activities, interpersonal relationships and/or living skills</p> <p>Can be left alone for part of the day and overnight - Needs a person each day (up to 11 hours) for assistance, supervision direction and/or cueing for occupational activities, interpersonal relationships and/or living skills</p> <p>Can be left alone for part of the day and overnight - Needs a person each day (up to 11 hours) for assistance, supervision direction and/or cueing for occupational activities, interpersonal relationships and/or living skills</p> <p>Can be left alone for a few days a week - Needs contact for occupational activities, interpersonal relationships, living skills or emotional support a few days a week</p> <p>Can be left alone for almost all week - Needs contact for occupational activities, interpersonal relationships, living skills or emotional support at least once a week</p> <p>Can live alone, but needs intermittent (i.e., less than weekly) contact for occupational activities, interpersonal relationships, living skills or emotional support</p> <p>Can be left alone for a few days a week - Needs contact for occupational activities, interpersonal relationships, living skills or emotional support a few days a week</p> <p>Can be left alone for almost all week - Needs contact for occupational activities, interpersonal relationships, living skills or emotional support at least once a week</p> <p>Can live alone, but needs intermittent (i.e., less than weekly) contact for occupational activities, interpersonal relationships, living skills or emotional support</p> <p>Can live in the community, totally independently - Does not need contact</p>
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Appendix B – Operational definitions for PCANS-2 items

This appendix provides operational definitions for PCANS-2 items that need further elaboration.

Domain I. High level needs:
<p>1. Tracheostomy management</p> <p>Primarily for dysphagia.</p> <p><i>Operational definition</i> of support activities that may be required: preparation for suction, suction process, dressings, cleaning equipment, equipment changes, apply speaking valve (NB: in agitated children observation may also be required to prevent child pulling tube out).</p>
<p>2. Nasogastric/PEG feeding</p> <p>Primarily for feeding and insertion of fluids.</p> <p><i>Operational definition</i> of support activities that may be required: preparation of fluids/bolus/medications, set up, insertion, monitoring and prevention of aspiration, flushing, cleaning equipment (NB: in agitated children observation may also be required to prevent child pulling out tube; activities may also include wound management in situations where this is required).</p>
<p>3. Bed mobility if unable to independently turn in bed</p> <p>Primarily for turning and positioning to prevent pressure sores.</p> <p><i>Operational definition</i> of support activities that may be required: preparation (splints off and on, hoisting bed up and down), turning, positioning in bed/chair (NB: if child has a pressure wound, then management of this complication will also be required).</p>
<p>4. Management of wandering behaviour</p> <p>Wandering behaviour that continually places a person at risk, generally requiring constant supervision.</p> <p><i>Operational definition</i> of support activities that may be required: observation, monitoring, ensuring safety in their environment, find and return person to safe area, recording.</p>
<p>5. Management of harmful behaviour (exhibits behaviours that have the potential to cause harm to self or others)</p> <p>Refers to challenging behaviours of sufficient severity to cause harm to self or others. It includes (but is not restricted to) physical aggression (e.g. hitting, biting, throwing things), impulsive behaviours (e.g. crossing road without caution, turning on hot taps), emotional distress (e.g. suicide ideation, major depressive episodes, post-traumatic psychoses). These disorders will either be observed directly or identified via assessment.</p> <p><i>Operational definition</i> of support activities that may be required: observation, recording, implementing interventions, dealing with crises.</p>
<p>6. Communicating basic needs due to language impairments:</p> <p>Refers to any communication problem (which includes aphasia and dysarthria) that results in communication support by another person being needed by the child to understand or express matters; for example toileting (e.g. need to go to the toilet), eating (e.g. stating that they are hungry or thirsty), or tired.</p>
<p>7. Eating</p> <p>Refers to (1) bringing food to mouth (all textures) and (2) swallowing and chewing.</p>
<p>8. Transfers/indoor mobility</p> <p>Refers to activities to assist with locomotion.</p> <p><i>Operational definition</i> of support activities that may be required:</p> <p>Transfers – in and out of chair, bed, bath, toilet and other activities each day (e.g. therapy, shopping, recreational activity). Transfers may involve operation of a hoist, or require 2 people.</p> <p>Indoor mobility – assist with stairs, supervision of movement around house, pushing wheelchair.</p>

Domain II. Personal hygiene:
9. Continence: bladder and bowel during day No accidents during the day.
10. Continence: bladder and bowel during night No accidents during the night.
11. Toileting (includes hygiene and clothes management) The child is able to: (1) go to the toilet, (2) pull clothing up and down and adjust as appropriate, (3) wipe and clean themselves, (4) flush the toilet and (5) wash their hands.
12. Washing face/hands Includes turning the tap on and off, using soap and drying hands.
13. Brushing or combing hair
14. Cleaning/brushing teeth Includes getting items, putting paste on brush, washing brush and cleaning teeth in a satisfactory manner (younger children will do most of the task themselves but may need physical assistance with back teeth, or set-up assistance). For supervision this includes prompts to brush teeth.
15. Period management, shaving (if appropriate) Period management includes being prepared by having appropriate sanitary products close by (school or hand bag), being able to independently use the products, know when to change the products and appropriate disposal. Shaving includes knowing when to shave, having appropriate tools, knowledge of how to shave without excessive damage to the skin, knowledge of what to do if a cut occurs, appropriate safety with the razor.
Domain III. Bathing/dressing:
16. Simple dressing and undressing including doing fasteners (e.g. buttons and zips) Simple dressing includes school uniform, jeans, pants, jacket, skirt and dress. Younger children may require verbal cues or set-up assistance regarding what types of clothes to wear (e.g. clothes laid out for them) or need physical assistance with fasteners.
17. Dressing to suit the occasion (e.g. school uniform at school, pyjamas for bedtime)
18. Washing self in bath/shower Includes safely getting in and out bath/shower and washing all parts of the body satisfactorily. It does not include running the bath and managing water temperature.
19. Putting on socks and shoes including fasteners (e.g. shoelaces)
20. Washing hair
21. Forethought to ensure bath/shower safety (e.g. hot water temperature)
22. Dressing to suit the weather Refers to what clothes to wear for weather conditions.
Domain IV. Food preparation activities:
23. Using cups Cups refer to standard cups without sipper lids. The child uses the cup without excessive spills.
24. Preparing simple snacks (no cooking or mixing involved) For example, getting pre-packaged foods from pantry and opening it (cereal, buttering cracker, biscuit or bread). This does not include using sharp knives, peeling, heating etc.

<p>25. Using cutlery</p> <p>Includes knife, spoon, fork, or other culturally accepted utensils or methods of eating (e.g. chopsticks). The child should not make excessive mess when using utensils.</p>
<p>26. Using jugs/carton/bottle (including when full/heavy)</p> <p>The child should be able to pour cold liquids from a jug/carton/bottle without excessive spills.</p>
<p>27. Using microwave/simple heating of food</p>
<p>28. Setting table, clearing table</p> <p>Refers to setting table according to family custom or culture.</p>
<p>29. Cooking simple foods</p> <p>Note this refers to simple foods. For example, heating up left-overs, pre-packaged foods which require heating up only.</p>
<p>30. Preparing and cooking a hot meal</p> <p>Refers to independently cooking for themselves not necessarily for the whole family.</p> <p>The young person may assist preparing a family meal.</p>
<p>Domain V. Shopping:</p>
<p>31. Simple shopping (school canteen)</p> <p>The child does not lose the money the adult gives to them. They are able to state what they want at the canteen and hand money over. Usually child has correct money, or little change is required.</p>
<p>32. Shopping at local shops</p> <p>Includes purchasing a single item at the milk bar (e.g. lollies, bread, milk). May also include going to a corner store close to family home, into a shop while parents wait outside for them, or browsing in a shop or department store while parent is close by (child does not wander off).</p>
<p>33. Shopping with a prepared shopping list</p> <p>Adult prepares the shopping list of 4-6 items, the child does not need to make a decision about what goes on the list. Purchase is made with cash.</p>
<p>34. Buying ingredients for preparing main meal</p> <p>Includes making a decision about what ingredients for the meal are needed.</p>
<p>35. Generating and using a shopping list</p> <p>Includes regular supermarket shopping with 4-6 everyday items to purchase with cash.</p> <p>Also includes making a decision about what products are needed.</p>
<p>Domain VI. Home activities:</p>
<p>36. Placing clothes in laundry basket, putting clothes away in cupboard/drawers</p> <p>Includes placing soiled clothes in laundry basket. Putting clothes way in appropriate cupboard/drawers. Refers to the child's own clothes.</p>
<p>37. Keeping tidy main living areas of home</p> <p>Refers to the child's own belongings, toys. Tidying up in these areas after making a mess.</p>
<p>38. Tidying and cleaning own bedroom</p>
<p>39. Making own bed</p>
<p>40. Doing regular chores for which they are responsible (e.g. taking out garbage)</p> <p>Includes regular chores that are appropriate for the developmental level of the child.</p> <p>Families will usually give the child one or more simple tasks for them to do routinely. The type and amount will vary between cultures. Tasks may include: taking out garbage, feeding pet, putting folded clothes away, making their bed, or cleaning up their own mess.</p>

<p>41. Washing up dishes Refers to washing up dishes according to family custom (e.g. in sink or using a dishwasher).</p>
<p>Domain VII. Health, safety and medication use:</p>
<p>42. Independently seeking adult support and guidance when needed Note: Physical assistance is not scored for this item.</p>
<p>43. Following rules and safety precautions at school and in the community For example, these rules may include: no leaving school grounds, no running in the classroom, no talking in the library, handling scissors safely.</p>
<p>44. Following safety precautions at home For example, these rules may include: not putting things in power points, no running in the house, not turning on stove, handling scissors safely.</p>
<p>45. Responding to novel/emergency situations Novel situations include getting help if a parent is ill, waiting at the school gate if the carer is few minutes late at pick-up time, responding directions of teacher during fire evacuation at school</p>
<p>46. Dealing with vulnerability risks (e.g. opening front door to strangers & letting them in) Includes basic stranger danger principles, e.g. not opening front door to strangers & letting them in, not being led away with strangers, not wandering off in the shops, staying at the carer's side or holding hands in parks, not accepting foods or lifts from strangers.</p>
<p>47. Using the internet safely (including understanding of privacy issues, restricted sites)</p>
<p>48. Responsible behaviour regarding drugs, alcohol or sex</p>
<p>49. Understanding and managing sexually transmitted diseases</p>
<p>50. Able to use own (regular) medications Includes the child's regular medications (e.g. asthma medications), common over the counter medicines (paracetamol).</p>
<p>51. Making and keeping health/medical appointments Includes organisation of appointments and getting to them on time.</p>
<p>Domain VIII. Money management:</p>
<p>52. Counting change accurately The child understands that they will get change and wait for it to be given. They should know if it is correct. Change for a maximum of \$5.</p>
<p>53. Saving for at least one major purchase For example, saving for a recreational item such as a computer game.</p>
<p>54. Earning pocket money</p>
<p>55. Understanding concept of repaying loans from own pocket money</p>
<p>56. Having simple job such as paper round or delivering pamphlets (usually no money exchange involved)</p>
<p>57. Babysitting and/or looking after younger siblings</p>
<p>58. Accessing a bank account For example, the use of key card to withdraw money, going into the bank to accessing money. Includes basic budgeting skills.</p>

<p>59. Responsibly using own bank account (e.g. EFTPOS, ATM, internet banking) Use of electronic banking, EFTPOS, ATM, internet banking. In addition to accessing account, this includes saving, budgeting, and transferring between accounts.</p>
<p>Domain IX. Everyday devices:</p>
<p>60. Simple use of everyday equipment (e.g. simple use of TV, video, DVD, computer, simple email/mobile use)</p>
<p>61. Simple telephone use including answering phone calls at home (e.g. getting the right person for the call and taking messages)</p>
<p>62. Dialling emergency numbers (understands the concept) The child could dial 000 if required and answer the operator's questions. The child may not have dialled 000 in the past. Includes dialling parents mobile for an emergency.</p>
<p>63. Using home phone routinely and appropriately (e.g. including making and answering calls, understanding about cost of calls) The child could dial a number they have in front of them and ask for the correct person. This would involve people they know/family. They may know how to speed dial. Understands about the cost of calls.</p>
<p>Domain X. Transport and outdoor surfaces:</p>
<p>64. Getting in and out of the car</p>
<p>65. Getting around in outside areas of the home, e.g. in the driveway, up and down the stairs</p>
<p>66. Fastening seat belts</p>
<p>67. Road crossing (adequate understanding/judging of speed and time of approaching vehicles) Road crossing also requires adequate understanding of basic rule rules. Note: RTA recommends child hold hands of an adult until 12 years old.</p>
<p>68. Getting on and off bus</p>
<p>69. Getting on and off train or tram</p>
<p>70. Catching public transport to school and familiar places For catching a bus (or tram or train), the child would be met with the parent/caregiver at one end and by school staff/familiar adult at the other end. The child needs to know where to get off the bus, and not to be distracted by the noise and people around them. The child should also have knowledge of what to do if something goes wrong (a back-up plan), i.e. the bus does not come, or they get off at the wrong stop.</p>
<p>71. Using public transport to get to unfamiliar places or complicated destinations This includes changing buses, or combining train and bus.</p>
<p>Domain XI. Interpersonal relationships: Note: Only supervision is score for the items in this domain For the interpersonal relationships domain, if the child's behaviours are so intense that physical assistance is required then these behaviours should be rated in Items 4 and 5 in the High level needs section. For items 79 to 84, appropriateness refers to behaviour relating to externalising (e.g. impulsivity, inability to control behaviour) as well internalising conditions (e.g. not being able to assert themselves, are easily led and are overly sensitive).</p>
<p>72. Having age-appropriate behaviour in the classroom</p>
<p>73. Having age-appropriate behaviour at home</p>

<p>74. Forming and maintaining friendships (short term): Having a friend/s for 1 week to 1 term</p> <p>Involves applying the social skills to make and keep a friend. Friends will be generally the same age (not much younger children or much older students/adults).</p> <p>For example, children requiring support for this item may wander about the playground, without interacting with other children, or who have a different friend each week.</p>
<p>75. Interacting appropriately with younger children</p>
<p>76. Maintaining friendships: Having established friendships (i.e. for more than a year)</p>
<p>77. Having appropriate manners in public</p> <p>For example, the child says hello, goodbye, please, thank you; uses culturally appropriate table manners/manners.</p>
<p>78. Other centredness: Reading situation/non-verbal cues from others (e.g. knows when to stop annoying behaviour)</p> <p>The child is able to read body language, facial expression and tonal changes in voice. They can see when someone is upset when a joke or game has gone too far.</p>
<p>79. Interacting appropriately within peer group</p> <p>Peer groups are often formed at school or are part of external bodies such as sporting clubs. In younger children focus is on play and games, in older children it is more on meeting social needs.</p>
<p>80. Having appropriate impulse control while playing</p> <p>Includes waiting for their turn, controlling anger or frustration if something doesn't go their way, following the rules, and accepting the decisions of referees.</p>
<p>81. Conversation appropriateness: Turn-taking in conversations (not too talkative/quiet)</p> <p>The child is able to conduct a reciprocal conversation.</p>
<p>82. Monitoring own behaviour when interacting with others in public</p> <p>The child is considerate of the presence of other people and surroundings (e.g. child displays impulsive or inappropriate behaviours in public places).</p> <p>Includes not being overly friendly to strangers, telling strangers inappropriate details such as their age or address, or is not extremely shy with familiar people. Also includes inappropriate intimacy.</p>
<p>83. Tactfulness and sensitivity (e.g. not making statements that may embarrass or offend others)</p> <p>The child does not make inappropriate remarks within earshot of the person, e.g. "why is that lady so fat?"</p>
<p>84. Having appropriate intimate interactions with peers</p>
<p>Domain XII. Leisure, recreation and play:</p>
<p>85. Initiating play and being cooperative in small groups (two or three children)</p> <p>Occurs often in the playground. The child does not always try to be the boss, will accept leadership or ideas of other children. Does not derail the game, or get excessively wound-up.</p> <p>Does not throw a tantrum etc. if the game does not go their way. Includes initiating the request to play, and joining the game without disrupting it.</p>
<p>86. Turn-taking while playing in large groups (four or more children)</p>
<p>87. Playing alone (includes initiating, planning and maintaining play)</p> <p>The child plays without excessively requiring attention from parents/caregivers.</p>
<p>88. Simple use of the internet (e.g. pre-selected sites)</p> <p>Includes research for school projects using a pre-selected search engine.</p>
<p>89. Having a hobby or interest</p> <p>May include collecting things, crafts and sports. Does not include passively watching TV.</p>
<p>90. Participating in non-school activities (e.g. sports)</p>

<p>91. Time management and planning for recreational/school projects For example, time management for big school projects and not leaving it to the last minute.</p>
<p>92. Practical organising of recreational activities for a group of friends including use of timetables (e.g. going to the movies) Example of going to a movie includes organising a meeting time, looking at movie schedule, organising friends to meet at venue and transport to and from cinema.</p>
<p>Domain XIII. School:</p>
<p>93. Paying attention for at least 15 minutes during class</p>
<p>94. Writing short notes Includes short notes of up to 3 or 4 components. Components may be ideas or sentences. For example, the child can take a simple phone message with a name and number. Includes electronic devices, (typing) for those who use this as main form of “written” communication</p>
<p>95. Understanding written notes Includes written notes of up to 3 or 4 components For example, the child can understand a simple note/phone message with a name and number.</p>
<p>96. Giving correct name (Y/N), address (Y/N) and telephone number (Y/N) Must be able correctly give (usually verbally express) all three components of information, please indicate (circle) which component/s the child is able to give</p>
<p>97. Responding to multi-step instructions – at least 2-3 components May include both related and unrelated components e.g. 1 “Go and get your hat, jumper, and schoolbag” (related) e.g. 2 “Put the toy away, get your school bag, and get into the car” (unrelated)</p>
<p>98. Packing school bag appropriately (e.g. lunch, books)</p>
<p>99. Telling the time The child can read an analogue or digital clock.</p>
<p>100. Getting to school on time The child needs prompting/support to get ready by the usual time they leave the house.</p>
<p>101. Working appropriately at tasks (includes not becoming discouraged/quitting and not working excessively) Includes the child not being fixated on a task as well as staying on-task without getting distracted.</p>
<p>102. Completing homework Includes staying on-task to complete homework.</p>
<p>103. Following school timetable (if appropriate) Includes high school students, some primary school students may also use a timetable.</p>
<p>104. Using calendar/desk diary Includes using diary to record homework and appointments.</p>
<p>105. Filling out application form or writing a formal/application letter</p>

Appendix C – Paediatric Care and Needs Scale 2

Form A: 5 to 7 years
Form B: 8 to 11 years
Form C: 12 to 14 years
Form D: 15 years

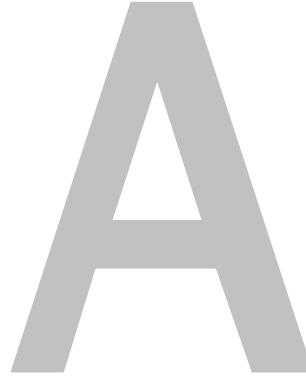
Paediatric Care and Needs Scale 2

Client name: _____
 Date of interview: _____
 DOB: _____ Age: _____
 Date of ABI: _____
 Cause of ABI: _____
 GCS/PTA/Severity (if known/applicable):

 Informant type: Parent / Other:

 Date of last PCANS-2: _____
 Current examiner's name:

 Have you attended PCANS-2 training: Yes / No



PCANS-2

RECORD

FORM A

5 to 7 years

Instructions:

This questionnaire focuses on a range of activities children perform every day. For each activity please indicate:

(1) Whether your child requires:

i. Physical assistance – someone to do the activity for them, hands-on assistance, help with set-up;

AND/OR

ii. Supervision - verbal prompts or indirect supervision

(2) If no supports are needed then

0 = “none”

(3) If your child requires physical assistance and/or supervision for that activity, please indicate whether the level they require is:

1 = “some” or

2 = “a lot”

These supports may be provided by the parent/caregiver, a family member, a teacher, an external service or other. Each rating is made according to how things are for your child now.

Note to clinician: For each applicable item, enter a score (0, 1, or 2) in both Physical assistance and Supervision sections.

Influence of other Factors on Item Score

In the column “Other influences” record the presence of factors pertinent to any item that are not resultant from the child’s ABI using the following abbreviations:

C=cultural beliefs or habits

N=non-ABI factors such as fractures, spinal cord injury occurring concurrently to the ABI

Pre=pre-existing health, medical, learning or developmental problems

O=other influences.

EXPLAIN ANY SUCH FACTORS FOR THIS CHILD _____

Please consult manual for detailed item definitions

PCANS 2 FORM A – 5 to 7 years

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): <u>Physical assistance (fully assisted in doing activity, or hands-on help/set up):</u> 0 = independent 1 = needs some assistance 2 = needs a lot of assistance <u>Supervision (needs verbal prompts or indirect supervision):</u> 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE	Phys. Assistance	Supervision	Comments	Other influences
Domain I. High level needs: Does your child require support (physical assistance or supervision) for the following?	PA	S	* Items 1-3 scored as 0=not a problem 2=needs support	
1. Tracheostomy management * Items 1-3 are scored as 0 or 2. <i>Please circle correct score. If PA =2 then S score =2 by default for items 1-3 only.</i>	0/2	0/2		
2. Nasogastric/PEG feeding *	0/2	0/2		
3. Bed mobility if unable to independently turn over in bed*	0/2	0/2		
4. Management of wandering behaviour				
5. Management of harmful behaviour (exhibits behaviours that have the potential to cause harm to self or others)				
6. Communicating basic needs due to language impairments				
7. Eating				
8. Transfers/indoor mobility				
Total raw score: Domain I. High level needs				

* Items 1-3 are scored as 0 or 2. Please circle correct score

Domain II. Personal hygiene: Does your child require support (physical assistance or supervision) for the following?	PA	S		
IND 9. Continence: bladder and bowel during day				
EM 10. Continence: bladder and bowel during night				
EM 11. Toileting (includes hygiene and clothes management)				
EM 12. Washing face/hands				
EM 13. Brushing or combing hair				
EM 14. Cleaning/brushing teeth				
NE 15. Period management, shaving (if appropriate)				
Total raw score: Domain II. Personal Hygiene				

Domain III. Bathing/dressing: Does your child require support (physical assistance or supervision) for the following?	PA	S		
EM 16. Simple dressing and undressing including doing fasteners (e.g. buttons and zips)				
EM 17. Dressing to suit the occasion				
EM 18. Washing self in bath/shower				
EM 19. Putting on socks and shoes including fasteners (e.g. shoelaces)				
EM 20. Washing hair				
EM 21. Forethought to ensure bath/shower safety (e.g. water temperature)				
EM 22. Dressing to suit the weather				
Total raw score: Domain III. Bathing/dressing				

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain IV. Food preparation activities:					
Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	23. Using cups				
EM	24. Preparing simple snacks (no cooking or mixing involved)				
EM	25. Using cutlery				
EM	26. Using jugs/carton/bottles (including when full/heavy)				
EM	27. Using microwave/simple heating up of food				
EM	28. Setting table, clearing table				
EM	29. Cooking simple foods				
NE	30. Preparing and cooking a hot meal				
Total raw score: Domain IV. Food preparation activities					

Domain V. Shopping:					
Does your child require support (physical assistance or supervision) for the following?		PA	S		
EM	31. Simple shopping (school canteen)				
EM	32. Shopping at local shops				
NE	33. Shopping with a prepared shopping list				
NE	34. Buying ingredients for preparing main meal				
NE	35. Generating and using a shopping list				
Total raw score: Domain V. Shopping					

Domain VI. Home activities:					
Please describe your child's regular chores:					

Does your child require support (physical assistance or supervision for the following)?		PA	S		
EM	36. Placing clothes in laundry basket, putting clothes away in cupboard/drawers				
EM	37. Keeping tidy main living areas of home (their own belongings, toys)				
EM	38. Tidying and cleaning own bedroom				
EM	39. Making own bed				
EM	40. Doing regular chores for which they are responsible (e.g. taking out garbage)				
EM	41. Washing up dishes				
Total raw score: Domain VI. Home activities					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain VII. Health, safety and medication use: Please indicate the child's regular medications (if applicable): _____ _____ Does your child require support (physical assistance or supervision for the following)?		PA	S		
IND	42. Independently seeking adult support and guidance when needed				
IND	43. Following rules and safety precautions at school and in the community				
IND	44. Following safety precautions at home				
EM	45. Responding to novel/emergency situations				
EM	46. Dealing with vulnerability risks (e.g. opening front door to strangers & letting them in)				
EM	47. Using the internet safely (including understanding privacy issues, restricted sites)				
NE	48. Responsible behaviour regarding drugs, alcohol or sex				
NE	49. Understanding and managing sexually transmitted diseases				
NE	50. Able to use own (regular) medications				
NE	51. Making and keeping health/medical appointments				
Total raw score: Domain VII. Health, safety and medication use					

Domain VIII. Money management: Does your child require support (physical assistance or supervision) for the following?		PA	S		
EM	52. Counting change accurately				
EM	53. Saving for at least one major purchase				
EM	54. Earning pocket money				
EM	55. Understanding concept of repaying loans from own pocket money				
NE	56. Having simple job such as paper round or delivering pamphlets (usually no money exchange involved)				
NE	57. Babysitting and/or looking after younger siblings				
NE	58. Accessing a bank account				
NE	59. Responsibly using own bank account (e.g. EFTPOS, ATM, internet banking)				
Total raw score: Domain VIII. Money management					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain IX. Everyday devices: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	60. Simple use of everyday equipment (e.g. simple use of TV, video, DVD, computer [including computer games], simple email/mobile use)				
EM	61. Simple telephone use including answering phone calls at home (e.g. getting the right person for the call and taking messages)				
EM	62. Dialling emergency numbers (understands concept)				
EM	63. Using home phone routinely and appropriately (e.g. including making and answering calls, understanding about cost of calls)				
Total raw score: Domain IX. Everyday devices					

Domain X. Transport and outdoor surfaces: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	64. Getting in and out of the car				
IND	65. Getting around in outside areas of the home, e.g. in the driveway, up and down the stairs				
EM	66. Fastening seat belts				
EM	67. Road crossing (adequate understanding/judging of speed and time of approaching vehicles)				
EM	68. Getting on and off bus				
EM	69. Getting on and off train or tram				
NE	70. Catching public transport to school and familiar places				
NE	71. Using public transport to get to unfamiliar places/complicated destinations				
Total raw score: Domain X. Transport and outdoor surfaces					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain XI. Interpersonal relationships: Does your child require support (supervision and guidance) for the following?		PA	S	PA not scored for Interpersonal Relationships domain	
IND	72. Having age-appropriate behaviour in the classroom				
IND	73. Having age-appropriate behaviour at home				
IND	74. Forming friendships: Having a friend/s for 1 week to 1 term				
IND	75. Interacting appropriately with younger children				
IND	76. Maintaining friendships: Having established friend/s (i.e. for more than a year)				
EM	77. Having appropriate manners in public				
EM	78. Other centredness: Reading situation/non-verbal cues from others (e.g. knows when to stop annoying behaviour)				
EM	79. Interacting appropriately within peer group				
EM	80. Having appropriate impulse control while playing				
EM	81. Conversation appropriateness: Turn-taking in conversations (not too talkative/quiet)				
EM	82. Monitoring own behaviour when interacting with others in public				
EM	83. Tactfulness and sensitivity (e.g. not making statements that may embarrass or offend others)				
NE	84. Having appropriate intimate interactions with peers				
Total raw score: Domain XI. Interpersonal relationships					

Domain XII. Leisure, recreation and play: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	85. Initiating play and being cooperative in small groups (two or three children)				
IND	86. Turn-taking while playing in large groups (four or more children)				
IND	87. Playing alone (includes initiating, planning and maintaining play)				
EM	88. Simple use of the internet (e.g. pre-selected sites)				
EM	89. Having a hobby or interest				
EM	90. Participating in non-school activities (e.g. sports)				
EM	91. Time management and planning for recreational/school projects				
NE	92. Practical organising of recreational activities for a group of friends including use of timetables (e.g. going to the movies)				
Total raw score: Domain XII. Leisure, recreation and play					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain XIII. School: Please indicate if child needs and/or receives integration support or other informal educational support (tick): <input type="checkbox"/> None <input type="checkbox"/> Needed <input type="checkbox"/> Received Please specify: _____ Does your child require support (physical assistance or supervision for the following)?		PA	S		
IND	93. Paying attention for at least 15 minutes during class				
EM	94. Writing short notes				
EM	95. Understanding written notes				
EM	96. Giving correct name (Y/N), address (Y/N) and telephone number (Y/N)				
EM	97. Responding to multi-step instructions – at least 2-3 components				
EM	98. Packing school bag appropriately (e.g. lunch, books, sports gear)				
EM	99. Telling the time				
EM	100. Getting to school on time				
EM	101. Working appropriately at school tasks (e.g. not becoming discouraged/quitting, stays on task)				
EM	102. Completing homework				
NE	103. Following school timetable (if appropriate)				
NE	104. Using calendar/desk diary				
NE	105. Filling out application form or writing a formal/application letter				
Total raw score: Domain XIII. School					

Does your child require supports in any areas that have not been covered by this questionnaire?
 Please specify:

Paediatric Care and Needs Scale (PCANS-2)

Scoring Work Sheet for Form A

Name:

Date:

	Column 1	Column 2	Column 3	Column 4	Column 5
Domain	Raw score (transfer from record form)	Number of applicable items	No. of items actually administered (if differs from column 2)	Raw score (col. 1) divided by # of items actually administered (columns 2 or 3)	Domain Mean score (Type of support needs; possible score range 0-2) to 2 decimal places
1. Physical Assistance					
I: High level		8		____/____	
II: Personal hygiene		6		____/____	
III: Bathing / dressing		7		____/____	
IV: Food preparation		7		____/____	
V: Shopping		2		____/____	
VI: Home activities		6		____/____	
VII: Health, safety & meds		5		____/____	
VIII: Money management		4		____/____	
IX: Everyday devices		4		____/____	
X: Transport & outdoors		6		____/____	
XI: Relationships	Not scored				
XII: Leisure, rec & play		7		____/____	
XIII: School		10		____/____	
	Intensity of support needs for Physical Assistance score (sum of scores in Column 5; possible score range 0-24)				(A)
	Extent of support needs for Physical Assistance score [mean of: Intensity total (A) ÷ number of domains (n=12)] (possible score range 0-2)				(B)
2. Supervision					
I: High level		8		____/____	
II: Personal hygiene		6		____/____	
III: Bathing / dressing		7		____/____	
IV: Food preparation		7		____/____	
V: Shopping		2		____/____	
VI: Home activities		6		____/____	
VII: Health, safety & meds		6		____/____	
VIII: Money management		4		____/____	
IX: Everyday devices		4		____/____	
X: Transport & outdoors		6		____/____	
XI: Relationships		12		____/____	
XII: Leisure, rec & play		7		____/____	
XIII: School		10		____/____	
	Intensity of support needs for Supervision score (sum of scores in Column 5; possible score range 0-26)				(C)
	Extent of support needs for Supervision score [mean of: Intensity total (C) ÷ number of domains (n=13)] (possible score range 0-2)				(D)
	Overall Intensity of support needs for Physical Assistance and Supervision score: A + C (sum of above scores; possible score range 0-50)				(E)
	Overall Extent of support needs for Physical Assistance and Supervision score (B + D) ÷ 2 (possible score range 0-2)				(F)

NOTE: All calculations correct to 2 decimal places

PCANS-2 Summary Score Form (5 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		4.85	2.48	9.81	10.88	24
Extent of support: Physical assistance	B		0.40	0.21	0.82	0.91	2
Intensity of support: Supervision	C		10.22	1.99	14.20	13.03	26
Extent of support: Supervision	D		0.79	0.15	1.09	1.00	2
Overall intensity of support for PA and S	E		15.06	3.36	21.78	22.38	50
Overall extent of support for PA and S	F		0.59	0.14	0.87	0.90	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.39	0.29	0.97	1.00		0.73	0.30	1.33	1.17
III	Bathing/dressing		0.62	0.36	1.34	1.25		0.92	0.45	1.82	2.00
IV	Food preparation activities		0.40	0.27	0.94	1.00		0.78	0.33	1.44	1.50
V	Shopping		0.31	0.62	1.55	2.00		0.83	0.87	2.57*	2.00
VI	Home activities		0.32	0.54	1.40	1.75		1.53	0.47	2.47*	2.00
VII	Health, safety and medication use		0.25	0.31	0.87	1.20		0.70	0.45	1.60	1.60
VIII	Money management		1.27	0.75	2.77*	2.00		1.46	0.59	2.64*	2.00
IX	Everyday devices		0.33	0.45	1.23	1.50		0.41	0.47	1.35	1.50
X	Transport and outdoor surfaces		0.43	0.27	0.97	1.00		0.72	0.33	1.38	1.33
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.43	0.23	0.89	0.92
XII	Leisure, recreation and play		0.16	0.24	0.64	1.00		0.43	0.29	1.01	1.00
XIII	School		0.42	0.29	1.00	1.07		0.93	0.35	1.63	1.57

*Note: this is the actual score that is 2 SD above the mean, but it exceeds the maximum score of 2

PCANS-2 Summary Score Form (6 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		4.19	2.56	9.31	9.07	24
Extent of support: Physical assistance	B		0.35	0.21	0.77	0.76	2
Intensity of support: Supervision	C		7.16	1.95	11.06	11.44	26
Extent of support: Supervision	D		0.55	0.15	0.85	0.88	2
Overall intensity of support for PA and S	E		11.35	4.17	19.69	20.51	50
Overall extent of support for PA and S	F		0.45	0.17	0.79	0.82	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.22	0.26	0.74	1.17		0.52	0.31	1.14	1.17
III	Bathing/dressing		0.67	0.47	1.61	1.86		0.83	0.40	1.63	1.86
IV	Food preparation activities		0.33	0.25	0.83	0.86		0.52	0.32	1.16	1.20
V	Shopping		0.26	0.42	1.10	1.00		0.30	0.52	1.34	2.00
VI	Home activities		0.45	0.55	1.55	1.60		1.42	0.48	2.38*	2.00
VII	Health, safety and medication use		0.16	0.23	0.62	0.80		0.43	0.24	0.91	1.00
VIII	Money management		0.69	0.68	2.05*	2.00		0.77	0.63	2.03*	2.00
IX	Everyday devices		0.18	0.29	0.76	1.00		0.23	0.31	0.85	1.00
X	Transport and outdoor surfaces		0.36	0.33	1.02	1.00		0.63	0.41	1.45	1.33
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.35	0.23	0.81	0.90
XII	Leisure, recreation and play		0.26	0.29	0.84	0.83		0.38	0.28	0.94	1.00
XIII	School		0.48	0.38	1.24	1.30		0.77	0.37	1.51	1.71

**Note: this is the actual score that is 2 SD above the mean, but it exceeds the maximum score of 2*

PCANS-2 Summary Score Form (7 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		3.50	2.54	8.58	9.42	24
Extent of support: Physical assistance	B		0.29	0.21	0.71	0.78	2
Intensity of support: Supervision	C		6.12	2.35	10.82	11.40	26
Extent of support: Supervision	D		0.47	0.18	0.83	0.88	2
Overall intensity of support for PA and S	E		9.62	4.63	18.88	19.11	50
Overall extent of support for PA and S	F		0.38	0.19	0.76	0.77	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.18	0.19	0.56	0.50		0.46	0.31	1.08	1.33
III	Bathing/dressing		0.49	0.41	1.31	1.33		0.73	0.47	1.67	2.00
IV	Food preparation activities		0.27	0.22	0.71	0.80		0.48	0.29	1.06	1.29
V	Shopping		0.3	0.65	1.60	2.00		0.33	0.60	1.53	2.00
VI	Home activities		0.5	0.6	1.70	1.80		1.24	0.54	2.32*	2.00
VII	Health, safety and medication use		0.26	0.33	0.92	1.20		0.34	0.30	0.94	1.00
VIII	Money management		0.53	0.67	1.87	2.00		0.62	0.69	2.00	2.00
IX	Everyday devices		0.22	0.35	0.92	1.00		0.25	0.38	1.01	1.00
X	Transport and outdoor surfaces		0.24	0.3	0.84	1.00		0.41	0.32	1.05	1.17
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.31	0.25	0.81	1.17
XII	Leisure, recreation and play		0.21	0.3	0.81	1.14		0.33	0.27	0.87	1.14
XIII	School		0.37	0.35	1.07	1.44		0.65	0.33	1.31	1.14

**Note: this is the actual score that is 2 SD above the mean, but it exceeds the maximum score of 2*

Paediatric Care and Needs Scale 2

Client name: _____
 Date of interview: _____
 DOB: _____ Age: _____
 Date of ABI: _____
 Cause of ABI: _____
 GCS/PTA/Severity (if known/applicable):

 Informant type: Parent / Other:

 Date of last PCANS-2: _____
 Current examiner's name:

 Have you attended PCANS-2 training: Yes / No

B

PCANS-2

RECORD

FORM B

8 to 11 years

Instructions:

This questionnaire focuses on a range of activities children perform every day. For each activity please indicate:

(1) Whether your child requires:

i. Physical assistance – someone to do the activity for them, hands-on assistance, help with set-up;

AND/OR

ii. Supervision - verbal prompts or indirect supervision

(2) If no supports are needed then

0 = "none"

(3) If your child requires physical assistance and/or supervision for that activity, please indicate whether the level they require is:

1 = "some" or

2 = "a lot"

These supports may be provided by the parent/caregiver, a family member, a teacher, an external service or other. Each rating is made according to how things are for your child now.

Note to clinician: For each applicable item, enter a score (0, 1, or 2) in both Physical assistance and Supervision sections.

Influence of other Factors on Item Score

In the column "Other influences" record the presence of factors pertinent to any item that are not resultant from the child's ABI using the following abbreviations:

C=cultural beliefs or habits

N=non-ABI factors such as fractures, spinal cord injury occurring concurrently to the ABI

Pre=pre-existing health, medical, learning or developmental problems

O=other influences.

EXPLAIN ANY SUCH FACTORS FOR THIS CHILD _____

Please consult manual for detailed item definitions

PCANS 2 FORM B – 8 to 11 years

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): <u>Physical assistance (fully assisted in doing activity, or hands-on help/set up):</u> 0 = independent 1 = needs some assistance 2 = needs a lot of assistance <u>Supervision (needs verbal prompts or indirect supervision):</u> 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE	Phys. Assistance	Supervision	Comments	Other influences
Domain I. High level needs: Does your child require support (physical assistance or supervision) for the following?	PA	S	* Items 1-3 scored as 0=not a problem 2=needs support	
1. Tracheostomy management * Items 1-3 are scored as 0 or 2. <i>Please circle correct score. If PA =2 then S score =2 by default for items 1-3 only.</i>	0/2	0/2		
2. Nasogastric/PEG feeding *	0/2	0/2		
3. Bed mobility if unable to independently turn over in bed *	0/2	0/2		
4. Management of wandering behaviour				
5. Management of harmful behaviour (exhibits behaviours that have the potential to cause harm to self or others)				
6. Communicating basic needs due to language impairments				
7. Eating				
8. Transfers/indoor mobility				
Total raw score: Domain I. High level needs				

* Items 1-3 are scored as 0 or 2. Please circle correct score

Domain II. Personal hygiene: Does your child require support (physical assistance or supervision) for the following?	PA	S		
IND 9. Continence: bladder and bowel during day				
IND 10. Continence: bladder and bowel during night				
IND 11. Toileting (includes hygiene and clothes management)				
EM 12. Washing face/hands				
EM 13. Brushing or combing hair				
EM 14. Cleaning/brushing teeth				
NE 15. Period management, shaving (if appropriate)				
Total raw score: Domain II. Personal Hygiene				

Domain III. Bathing/dressing: Does your child require support (physical assistance or supervision) for the following?	PA	S		
IND 16. Simple dressing and undressing including doing fasteners (e.g. buttons and zips)				
IND 17. Dressing to suit the occasion				
EM 18. Washing self in bath/shower				
EM 19. Putting on socks and shoes including fasteners (e.g. shoelaces)				
EM 20. Washing hair				
EM 21. Forethought to ensure bath/shower safety (e.g. water temperature)				
EM 22. Dressing to suit the weather				
Total raw score: Domain III. Bathing/dressing				

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): <u>Physical assistance (fully assisted in doing activity, or hands-on help/set up):</u> 0 = independent 1 = needs some assistance 2 = needs a lot of assistance <u>Supervision (needs verbal prompts or indirect supervision):</u> 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain IV. Food preparation activities: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	23. Using cups				
IND	24. Preparing simple snacks (no cooking or mixing involved)				
EM	25. Using cutlery				
EM	26. Using jugs/carton/bottles (including when full/heavy)				
EM	27. Using microwave/simple heating up of food				
EM	28. Setting table, clearing table				
EM	29. Cooking simple foods				
EM	30. Preparing and cooking a hot meal				
Total raw score: Domain IV. Food preparation activities					

Domain V. Shopping: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	31. Simple shopping (school canteen)				
EM	32. Shopping at local shops				
EM	33. Shopping with a prepared shopping list				
EM	34. Buying ingredients for preparing main meal				
NE	35. Generating and using a shopping list				
Total raw score: Domain V. Shopping					

Domain VI. Home activities: Please describe your child's regular chores: <hr/>		PA	S		
Does your child require support (physical assistance or supervision for the following)?					
EM	36. Placing clothes in laundry basket, putting clothes away in cupboard/drawers				
EM	37. Keeping tidy main living areas of home (their own belongings, toys)				
EM	38. Tidying and cleaning own bedroom				
EM	39. Making own bed				
EM	40. Doing regular chores for which they are responsible (e.g. taking out garbage)				
EM	41. Washing up dishes				
Total raw score: Domain VI. Home activities					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain VII. Health, safety and medication use: Please indicate the child's regular medications (if applicable): _____ _____ Does your child require support (physical assistance or supervision for the following)?		PA	S		
IND	42. Independently seeking adult support and guidance when needed				
IND	43. Following rules and safety precautions at school and in the community				
IND	44. Following safety precautions at home				
EM	45. Responding to novel/emergency situations				
EM	46. Dealing with vulnerability risks (e.g. opening front door to strangers & letting them in)				
EM	47. Using the internet safely (including understanding privacy issues, restricted sites)				
NE	48. Responsible behaviour regarding drugs, alcohol or sex				
NE	49. Understanding and managing sexually transmitted diseases				
NE	50. Able to use own (regular) medications				
NE	51. Making and keeping health/medical appointments				
Total raw score: Domain VII. Health, safety and medication use					

Domain VIII. Money management: Does your child require support (physical assistance or supervision) for the following?		PA	S		
EM	52. Counting change accurately				
EM	53. Saving for at least one major purchase				
EM	54. Earning pocket money				
EM	55. Understanding concept of repaying loans from own pocket money				
NE	56. Having simple job such as paper round or delivering pamphlets (usually no money exchange involved)				
NE	57. Babysitting and/or looking after younger siblings				
NE	58. Accessing a bank account				
NE	59. Responsibly using own bank account (e.g. EFTPOS, ATM, internet banking)				
Total raw score: Domain VIII. Money management					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain IX. Everyday devices: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	60. Simple use of everyday equipment (e.g. simple use of TV, video, DVD, computer [including computer games], simple email/mobile use)				
IND	61. Simple telephone use including answering phone calls at home (e.g. getting the right person for the call and taking messages)				
IND	62. Dialling emergency numbers (understands concept)				
EM	63. Using home phone routinely and appropriately (e.g. including making and answering calls, understanding about cost of calls)				
Total raw score: Domain IX. Everyday devices					

Domain X. Transport and outdoor surfaces: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	64. Getting in and out of the car				
IND	65. Getting around in outside areas of the home, e.g. in the driveway, up and down the stairs				
IND	66. Fastening seat belts				
EM	67. Road crossing (adequate understanding/judging of speed and time of approaching vehicles)				
EM	68. Getting on and off bus				
EM	69. Getting on and off train or tram				
NE	70. Catching public transport to school and familiar places				
NE	71. Using public transport to get to unfamiliar places/complicated destinations				
Total raw score: Domain X. Transport and outdoor surfaces					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain XI. Interpersonal relationships: Does your child require support (supervision and guidance) for the following?		PA	S	PA not scored for Interpersonal Relationships domain	
IND	72. Having age-appropriate behaviour in the classroom				
IND	73. Having age-appropriate behaviour at home				
IND	74. Forming friendships: Having a friend/s for 1 week to 1 term				
IND	75. Interacting appropriately with younger children				
IND	76. Maintaining friendships: Having established friend/s (i.e. for more than a year)				
IND	77. Having appropriate manners in public				
EM	78. Other centredness: Reading situation/non-verbal cues from others (e.g. knows when to stop annoying behaviour)				
EM	79. Interacting appropriately within peer group				
EM	80. Having appropriate impulse control while playing				
EM	81. Conversation appropriateness: Turn-taking in conversations (not too talkative/quiet)				
EM	82. Monitoring own behaviour when interacting with others in public				
EM	83. Tactfulness and sensitivity (e.g. not making statements that may embarrass or offend others)				
NE	84. Having appropriate intimate interactions with peers				
Total raw score: XI. Domain Interpersonal relationships					

Domain XII. Leisure, recreation and play: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	85. Initiating play and being cooperative in small groups (two or three children)				
IND	86. Turn-taking while playing in large groups (four or more children)				
IND	87. Playing alone (includes initiating, planning and maintaining play)				
IND	88. Simple use of the internet (e.g. pre-selected sites)				
EM	89. Having a hobby or interest				
EM	90. Participating in non-school activities (e.g. sports)				
EM	91. Time management and planning for recreational/school projects				
EM	92. Practical organising of recreational activities for a group of friends including use of timetables (e.g. going to the movies)				
Total raw score: Domain XII. Leisure, recreation and play					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain XIII. School: Please indicate if child needs and/or receives integration support or other informal educational support (tick): <input type="checkbox"/> None <input type="checkbox"/> Needed <input type="checkbox"/> Received Please specify: _____ Does your child require support (physical assistance or supervision for the following)?		PA	S		
IND	93. Paying attention for at least 15 minutes during class				
IND	94. Writing short notes				
IND	95. Understanding written notes				
IND	96. Giving correct name (Y/N), address (Y/N) and telephone number (Y/N)				
EM	97. Responding to multi-step instructions – at least 2-3 components				
EM	98. Packing school bag appropriately (e.g. lunch, books, sports gear)				
EM	99. Telling the time				
EM	100. Getting to school on time				
EM	101. Working appropriately at school tasks (e.g. not becoming discouraged/quitting, stays on task)				
EM	102. Completing homework				
EM	103. Following school timetable (if appropriate)				
EM	104. Using calendar/desk diary				
EM	105. Filling out application form or writing a formal/application letter				
Total raw score: Domain XIII. School					

Does your child require supports in any areas that have not been covered by this questionnaire?
Please specify:

Paediatric Care and Needs Scale (PCANS-2)

Scoring Work Sheet for Form B

Name:

Date:

	Column 1	Column 2	Column 3	Column 4	Column 5
Domain	Raw score (transfer from record form)	Number of applicable items	No. of items actually administered (if differs from column 2)	Raw score (col. 1) divided by # of items actually administered (column 2 or 3)	Domain Mean score (Type of support needs; possible score range 0-2) to 2 decimal places
1. Physical Assistance					
I: High level		8		____/____	
II: Personal hygiene		6 or 7		____/____	
III: Bathing / dressing		7		____/____	
IV: Food preparation		8		____/____	
V: Shopping		4		____/____	
VI: Home activities		6		____/____	
VII: Health, safety & meds		5		____/____	
VIII: Money management		4		____/____	
IX: Everyday devices		4		____/____	
X: Transport & outdoors		6		____/____	
XI: Relationships	Not scored				
XII: Leisure, rec & play		8		____/____	
XIII: School		13		____/____	
	Intensity of support needs for Physical Assistance score (sum of scores in Column 5; possible score range 0-24)				(A)
	Extent of support needs for Physical Assistance score [mean of: Intensity total (A) ÷ number of domains (n=12)] (possible score range 0-2)				(B)
2. Supervision					
I: High level		8		____/____	
II: Personal hygiene		6 or 7		____/____	
III: Bathing / dressing		7		____/____	
IV: Food preparation		8		____/____	
V: Shopping		4		____/____	
VI: Home activities		6		____/____	
VII: Health, safety & meds		6		____/____	
VIII: Money management		4		____/____	
IX: Everyday devices		4		____/____	
X: Transport & outdoors		6		____/____	
XI: Relationships		12		____/____	
XII: Leisure, rec & play		8		____/____	
XIII: School		13		____/____	
	Intensity of support needs for Supervision score (sum of scores in Column 5; possible score range 0-26)				(C)
	Extent of support needs for Supervision score [mean of: Intensity total (C) ÷ number of domains (n=13)] (possible score range 0-2)				(D)
	Overall Intensity of support needs for Physical Assistance and Supervision score: A + C (sum of above scores; possible score range 0-50)				(E)
	Overall Extent of support needs for Physical Assistance and Supervision score (B + D) ÷ 2 (possible score range 0-2)				(F)

NOTE: All calculations correct to 2 decimal places

PCANS-2 Summary Score Form (8 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		1.94	1.32	4.58	5.90	24
Extent of support: Physical assistance	B		0.16	0.11	0.38	0.49	2
Intensity of support: Supervision	C		5.26	2.04	9.34	9.40	26
Extent of support: Supervision	D		0.40	0.16	0.72	0.72	2
Overall intensity of support for PA and S	E		7.20	3.01	13.22	15.29	50
Overall extent of support for PA and S	F		0.28	0.12	0.52	0.61	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.14	0.20	0.54	0.67		0.47	0.23	0.93	1.00
III	Bathing/dressing		0.24	0.27	0.78	0.86		0.48	0.39	1.26	1.57
IV	Food preparation activities		0.34	0.27	0.88	1.00		0.59	0.33	1.25	1.33
V	Shopping		0.14	0.31	0.76	1.00		0.22	0.51	1.24	2.00
VI	Home activities		0.12	0.21	0.54	1.00		1.27	0.52	2.31*	2.00
VII	Health, safety and medication use		0.12	0.18	0.48	0.50		0.45	0.36	1.17	1.60
VIII	Money management		0.15	0.42	0.99	2.00		0.25	0.44	1.13	2.00
IX	Everyday devices		0.04	0.12	0.28	0.50		0.14	0.20	0.54	0.50
X	Transport and outdoor surfaces		0.25	0.25	0.75	0.83		0.48	0.33	1.14	1.00
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.18	0.20	0.58	0.73
XII	Leisure, recreation and play		0.19	0.21	0.61	0.67		0.34	0.21	0.76	0.67
XIII	School		0.16	0.18	0.52	0.70		0.54	0.31	1.16	1.30

**Note: this is the actual score that is 2 SD above the mean, but it exceeds the maximum score of 2*

PCANS-2 Summary Score Form (9 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		1.53	1.26	4.05	5.13	24
Extent of support: Physical assistance	B		0.13	0.10	0.33	0.43	2
Intensity of support: Supervision	C		4.88	1.90	8.68	9.85	26
Extent of support: Supervision	D		0.38	0.15	0.68	0.76	2
Overall intensity of support for PA and S	E		6.40	2.53	11.46	11.82	50
Overall extent of support for PA and S	F		0.25	0.10	0.45	0.47	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.09	0.14	0.37	0.33		0.39	0.23	0.85	1.00
III	Bathing/dressing		0.13	0.17	0.47	0.57		0.40	0.33	1.06	1.43
IV	Food preparation activities		0.21	0.21	0.63	0.75		0.44	0.32	1.08	1.33
V	Shopping		0.27	0.47	1.21	2.00		0.25	0.43	1.11	1.50
VI	Home activities		0.22	0.32	0.86	1.00		1.36	0.49	2.34*	2.00
VII	Health, safety and medication use		0.15	0.24	0.63	0.80		0.40	0.36	1.12	1.50
VIII	Money management		0.07	0.21	0.49	1.00		0.21	0.31	0.83	1.00
IX	Everyday devices		0.03	0.10	0.23	0.50		0.05	0.14	0.33	0.50
X	Transport and outdoor surfaces		0.09	0.22	0.53	0.83		0.37	0.32	1.01	1.00
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.20	0.19	0.58	0.75
XII	Leisure, recreation and play		0.16	0.20	0.56	0.75		0.32	0.18	0.68	0.75
XIII	School		0.13	0.16	0.45	0.50		0.47	0.33	1.13	1.17

*Note: this is the actual score that is 2 SD above the mean, but it exceeds the maximum score of 2

PCANS-2 Summary Score Form (10 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		1.68	1.21	4.10	5.26	24
Extent of support: Physical assistance	B		0.14	0.10	0.34	0.44	2
Intensity of support: Supervision	C		4.07	1.82	7.71	9.41	26
Extent of support: Supervision	D		0.31	0.14	0.59	0.72	2
Overall intensity of support for PA and S	E		5.75	2.62	10.99	12.29	50
Overall extent of support for PA and S	F		0.23	0.10	0.43	0.49	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.05	0.11	0.27	0.33		0.31	0.28	0.87	1.00
III	Bathing/dressing		0.07	0.13	0.33	0.5		0.31	0.21	0.73	0.86
IV	Food preparation activities		0.19	0.17	0.53	0.57		0.36	0.23	0.82	0.75
V	Shopping		0.15	0.25	0.65	0.75		0.16	0.28	0.72	1.00
VI	Home activities		0.30	0.38	1.06	1.20		1.15	0.60	2.35*	2.00
VII	Health, safety and medication use		0.08	0.16	0.40	0.60		0.27	0.35	0.97	1.33
VIII	Money management		0.19	0.33	0.85	1.00		0.30	0.37	1.04	1.25
IX	Everyday devices		0.08	0.22	0.52	1.00		0.15	0.28	0.71	1.00
X	Transport and outdoor surfaces		0.13	0.22	0.57	0.67		0.23	0.32	0.87	1.17
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.18	0.18	0.54	0.67
XII	Leisure, recreation and play		0.25	0.27	0.79	0.75		0.34	0.23	0.80	0.88
XIII	School		0.19	0.23	0.65	0.75		0.39	0.29	0.97	0.96

*Note: this is the actual score that is 2 SD above the mean, but it exceeds the maximum score of 2

PCANS-2 Summary Score Form (11 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		1.07	1.16	3.39	5.29	24
Extent of support: Physical assistance	B		0.09	0.10	0.29	0.44	2
Intensity of support: Supervision	C		3.78	1.36	6.50	6.39	26
Extent of support: Supervision	D		0.29	0.10	0.49	0.49	2
Overall intensity of support for PA and S	E		4.85	2.09	9.03	11.48	50
Overall extent of support for PA and S	F		0.19	0.08	0.35	0.46	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.04	0.08	0.20	0.33		0.28	0.26	0.80	0.83
III	Bathing/dressing		0.06	0.16	0.38	0.71		0.23	0.23	0.69	0.86
IV	Food preparation activities		0.11	0.14	0.39	0.43		0.34	0.20	0.74	0.75
V	Shopping		0.18	0.25	0.68	0.75		0.26	0.29	0.84	1.00
VI	Home activities		0.25	0.38	1.01	1.50		1.24	0.53	2.30*	2.00
VII	Health, safety and medication use		0.10	0.18	0.46	0.60		0.28	0.23	0.74	0.83
VIII	Money management		0.11	0.35	0.81	1.33		0.21	0.43	1.07	1.67
IX	Everyday devices		0.00	0.00	0.00	0.00		0.03	0.09	0.21	0.25
X	Transport and outdoor surfaces		0.04	0.11	0.26	0.33		0.15	0.19	0.53	0.67
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.14	0.20	0.54	0.83
XII	Leisure, recreation and play		0.11	0.18	0.47	0.67		0.31	0.18	0.67	0.67
XIII	School		0.07	0.11	0.29	0.41		0.32	0.20	0.72	0.77

*Note: this is the actual score that is 2 SD above the mean, but it exceeds the maximum score of 2

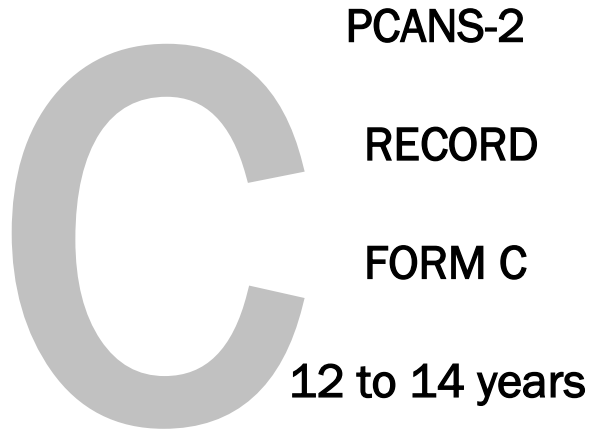
Paediatric Care and Needs Scale 2

Client name: _____
 Date of interview: _____
 DOB: _____ Age: _____
 Date of ABI: _____
 Cause of ABI: _____
 GCS/PTA/Severity (if known/applicable):

 Informant type: Parent / Other:

 Date of last PCANS-2: _____
 Current examiner's name:

 Have you attended PCANS-2 training: Yes / No



Instructions:

This questionnaire focuses on a range of activities children perform every day. For each activity please indicate:

- (1) Whether your child requires:
 - i. Physical assistance – someone to do the activity for them, hands-on assistance, help with set-up;
AND/OR
 - ii. Supervision - verbal prompts or indirect supervision
- (2) If no supports are needed then
0 = “none”
- (3) If your child requires physical assistance and/or supervision for that activity, please indicate whether the level they require is:
 - 1 = “some” or**
 - 2 = “a lot”**

These supports may be provided by the parent/caregiver, a family member, a teacher, an external service or other. Each rating is made according to how things are for your child now.

Note to clinician: For each applicable item, enter a score (0, 1, or 2) in both Physical assistance and Supervision sections.

Influence of other Factors on Item Score
 In the column “Other influences” record the presence of factors pertinent to any item that are not resultant from the child’s ABI using the following abbreviations:
 C=cultural beliefs or habits
 N=non-ABI factors such as fractures, spinal cord injury occurring concurrently to the ABI
 Pre=pre-existing health, medical, learning or developmental problems
 O=other influences.
EXPLAIN ANY SUCH FACTORS FOR THIS CHILD _____

Please consult manual for detailed item definitions

PCANS 2 FORM C – 12 to 14 years

* Items 1-3 are scored as 0 or 2. Please circle correct score

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): <u>Physical assistance (fully assisted in doing activity, or hands-on help/set up):</u> 0 = independent 1 = needs some assistance 2 = needs a lot of assistance <u>Supervision (needs verbal prompts or indirect supervision):</u> 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE	Phys. Assistance	Supervision	Comments	Other influences
Domain I. High level needs: Does your child require support (physical assistance or supervision) for the following?	PA	S	* Items 1-3 scored as 0=not a problem 2=needs support	
1. Tracheostomy management * <i>Items 1-3 are scored as 0 or 2. Please circle correct score. If PA =2 then S score =2 by default for items 1-3 only.</i>	0/2	0/2		
2. Nasogastric/PEG feeding *	0/2	0/2		
3. Bed mobility if unable to independently turn over in bed *	0/2	0/2		
4. Management of wandering behaviour				
5. Management of harmful behaviour (exhibits behaviours that have the potential to cause harm to self or others)				
6. Communicating basic needs due to language impairments				
7. Eating				
8. Transfers/indoor mobility				
Total raw score: Domain I. High level needs				

Domain II. Personal hygiene: Does your child require support (physical assistance or supervision) for the following?	PA	S		
IND 9. Continence: bladder and bowel during day				
IND 10. Continence: bladder and bowel during night				
IND 11. Toileting (includes hygiene and clothes management)				
IND 12. Washing face/hands				
IND 13. Brushing or combing hair				
EM 14. Cleaning/brushing teeth				
EM 15. Period management, shaving (if appropriate)				
Total raw score: Domain II. Personal Hygiene				

Domain III. Bathing/dressing: Does your child require support (physical assistance or supervision) for the following?	PA	S		
IND 16. Simple dressing and undressing including doing fasteners (e.g. buttons and zips)				
IND 17. Dressing to suit the occasion				
IND 18. Washing self in bath/shower				
IND 19. Putting on socks and shoes including fasteners (e.g. shoelaces)				
IND 20. Washing hair				
IND 21. Forethought to ensure bath/shower safety (e.g. water temperature)				
EM 22. Dressing to suit the weather				
Total raw score: Domain III. Bathing/dressing				

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain IV. Food preparation activities: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	23. Using cups				
IND	24. Preparing simple snacks (no cooking or mixing involved)				
IND	25. Using cutlery				
IND	26. Using jugs/carton/bottles (including when full/heavy)				
IND	27. Using microwave/simple heating up of food				
EM	28. Setting table, clearing table				
EM	29. Cooking simple foods				
EM	30. Preparing and cooking a hot meal				
Total raw score: Domain IV. Food preparation activities					

Domain V. Shopping: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	31. Simple shopping (school canteen)				
IND	32. Shopping at local shops				
EM	33. Shopping with a prepared shopping list				
EM	34. Buying ingredients for preparing main meal				
EM	35. Generating and using a shopping list				
Total raw score: Domain V. Shopping					

Domain VI. Home activities: Please describe your child's regular chores: _____ Does your child require support (physical assistance or supervision for the following)?		PA	S		
EM	36. Placing clothes in laundry basket, putting clothes away in cupboard/drawers				
EM	37. Keeping tidy main living areas of home (their own belongings, toys)				
EM	38. Tidying and cleaning own bedroom				
EM	39. Making own bed				
EM	40. Doing regular chores for which they are responsible (e.g. taking out garbage)				
EM	41. Washing up dishes				
Total raw score: Domain VI. Home activities					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain VII. Health, safety and medication use: Please indicate the child's regular medications (if applicable): _____ _____		PA	S		
Does your child require support (physical assistance or supervision for the following)?					
IND	42. Independently seeking adult support and guidance when needed				
IND	43. Following rules and safety precautions at school and in the community				
IND	44. Following safety precautions at home				
IND	45. Responding to novel/emergency situations				
IND	46. Dealing with vulnerability risks (e.g. opening front door to strangers & letting them in)				
EM	47. Using the internet safely (including understanding privacy issues, restricted sites)				
EM	48. Responsible behaviour regarding drugs, alcohol or sex				
EM	49. Understanding and managing sexually transmitted diseases				
NE	50. Able to use own (regular) medications				
NE	51. Making and keeping health/medical appointments				
Total raw score: Domain VII. Health, safety and medication use					

Domain VIII. Money management: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	52. Counting change accurately				
EM	53. Saving for at least one major purchase				
EM	54. Earning pocket money				
EM	55. Understanding concept of repaying loans from own pocket money				
EM	56. Having simple job such as paper round or delivering pamphlets (usually no money exchange involved)				
EM	57. Babysitting and/or looking after younger siblings				
EM	58. Accessing a bank account				
NE	59. Responsibly using own bank account (e.g. EFTPOS, ATM, internet banking)				
Total raw score: Domain VIII. Money management					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): <u>Physical assistance (fully assisted in doing activity, or hands-on help/set up):</u> 0 = independent 1 = needs some assistance 2 = needs a lot of assistance <u>Supervision (needs verbal prompts or indirect supervision):</u> 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain IX. <u>Everyday devices:</u> Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	60. Simple use of everyday equipment (e.g. simple use of TV, video, DVD, computer [including computer games], simple email/mobile use)				
IND	61. Simple telephone use including answering phone calls at home (e.g. getting the right person for the call and taking messages)				
IND	62. Dialling emergency numbers (understands concept)				
IND	63. Using home phone routinely and appropriately (e.g. including making and answering calls, understanding about cost of calls)				
Total raw score: Domain IX. Everyday devices					

Domain X. <u>Transport and outdoor surfaces:</u> Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	64. Getting in and out of the car				
IND	65. Getting around in outside areas of the home, e.g. in the driveway, up and down the stairs				
IND	66. Fastening seat belts				
IND	67. Road crossing (adequate understanding/judging of speed and time of approaching vehicles)				
EM	68. Getting on and off bus				
EM	69. Getting on and off train or tram				
EM	70. Catching public transport to school and familiar places				
EM	71. Using public transport to get to unfamiliar places/complicated destinations				
Total raw score: Domain X. Transport and outdoor surfaces					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES); DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain XI. <u>Interpersonal relationships:</u> Does your child require support (supervision and guidance) for the following?		PA	S	PA not scored for Interpersonal Relationships domain	
IND	72. Having age-appropriate behaviour in the classroom				
IND	73. Having age-appropriate behaviour at home				
IND	74. Forming friendships: Having a friend/s for 1 week to 1 term				
IND	75. Interacting appropriately with younger children				
IND	76. Maintaining friendships: Having established friend/s (i.e. for more than a year)				
IND	77. Having appropriate manners in public				
IND	78. Other centredness: Reading situation/non-verbal cues from others (e.g. knows when to stop annoying behaviour)				
IND	79. Interacting appropriately within peer group				
EM	80. Having appropriate impulse control while playing				
EM	81. Conversation appropriateness: Turn-taking in conversations (not too talkative/quiet)				
EM	82. Monitoring own behaviour when interacting with others in public				
EM	83. Tactfulness and sensitivity (e.g. not making statements that may embarrass or offend others)				
EM	84. Having appropriate intimate interactions with peers				
Total raw score: Domain XI. Interpersonal relationships					

Domain XII. <u>Leisure, recreation and play:</u> Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	85. Initiating play and being cooperative in small groups (two or three children)				
IND	86. Turn-taking while playing in large groups (four or more children)				
IND	87. Playing alone (includes initiating, planning and maintaining play)				
IND	88. Simple use of the internet (e.g. pre-selected sites)				
IND	89. Having a hobby or interest				
IND	90. Participating in non-school activities (e.g. sports)				
EM	91. Time management and planning for recreational/school projects				
EM	92. Practical organising of recreational activities for a group of friends including use of timetables (e.g. going to the movies)				
Total raw score: Domain XII. Leisure, recreation and play					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): <u>Physical assistance (fully assisted in doing activity, or hands-on help/set up):</u> 0 = independent 1 = needs some assistance 2 = needs a lot of assistance <u>Supervision (needs verbal prompts or indirect supervision):</u> 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain XIII. School: Please indicate if child needs and/or receives integration support or other informal educational support (tick): <input type="checkbox"/> None <input type="checkbox"/> Needed <input type="checkbox"/> Received Please specify: _____ Does your child require support (physical assistance or supervision for the following)?		PA	S		
IND	93. Paying attention for at least 15 minutes during class				
IND	94. Writing short notes				
IND	95. Understanding written notes				
IND	96. Giving correct name (Y/N), address (Y/N) and telephone number (Y/N)				
IND	97. Responding to multi-step instructions – at least 2-3 components				
IND	98. Packing school bag appropriately (e.g. lunch, books, sports gear)				
IND	99. Telling the time				
EM	100. Getting to school on time				
EM	101. Working appropriately at school tasks (e.g. not becoming discouraged/quitting, stays on task)				
EM	102. Completing homework				
EM	103. Following school timetable (if appropriate)				
EM	104. Using calendar/desk diary				
EM	105. Filling out application form or writing a formal/application letter				
Total raw score: Domain XIII. School					

Does your child require supports in any areas that have not been covered by this questionnaire?
Please specify:

**Paediatric Care and Needs Scale (PCANS-2)
Scoring Work Sheet for Form C**

Name:

Date:

	Column 1	Column 2	Column 3	Column 4	Column 5
Domain	Raw score (transfer from record form)	Number of applicable items	No. of items actually administered (if differs from column 2)	Raw score (col. 1) divided by # of items actually administered (column 2 or 3)	Domain Mean score (Type of support needs; possible score range 0-2) to 2 decimal places
1. Physical Assistance					
I: High level		8		____/____	
II: Personal hygiene		6 or 7		____/____	
III: Bathing / dressing		7		____/____	
IV: Food preparation		8		____/____	
V: Shopping		5		____/____	
VI: Home activities		6		____/____	
VII: Health, safety & meds		7		____/____	
VIII: Money management		7		____/____	
IX: Everyday devices		4		____/____	
X: Transport & outdoors		8		____/____	
XI: Relationships	Not scored				
XII: Leisure, rec & play		8		____/____	
XIII: School		13		____/____	
	Intensity of support needs for Physical Assistance score (sum of scores in Column 5; possible score range 0-24)				(A)
	Extent of support needs for Physical Assistance score [mean of: Intensity total (A) ÷ number of domains (n=12)] (possible score range 0-2)				(B)
2. Supervision					
I: High level		8		____/____	
II: Personal hygiene		6 or 7		____/____	
III: Bathing / dressing		7		____/____	
IV: Food preparation		8		____/____	
V: Shopping		5		____/____	
VI: Home activities		6		____/____	
VII: Health, safety & meds		8		____/____	
VIII: Money management		7		____/____	
IX: Everyday devices		4		____/____	
X: Transport & outdoors		8		____/____	
XI: Relationships		13		____/____	
XII: Leisure, rec & play		8		____/____	
XIII: School		13		____/____	
	Intensity of support needs for Supervision score (sum of scores in Column 5; possible score range 0-26)				(C)
	Extent of support needs for Supervision score [mean of: Intensity total (C) ÷ number of domains (n=13)] (possible score range 0-2)				(D)
	Overall Intensity of support needs for Physical Assistance and Supervision score: A + C (sum of above scores; possible score range 0-50)				(E)
	Overall Extent of support needs for Physical Assistance and Supervision score (B + D) ÷ 2 (possible score range 0-2)				(F)

NOTE: All calculations correct to 2 decimal places

PCANS-2 Summary Score Form (12 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		0.86	0.74	2.34	3.06	24
Extent of support: Physical assistance	B		0.07	0.06	0.19	0.26	2
Intensity of support: Supervision	C		3.55	1.75	7.05	7.85	26
Extent of support: Supervision	D		0.27	0.13	0.53	0.60	2
Overall intensity of support for PA and S	E		4.42	2.30	9.02	10.00	50
Overall extent of support for PA and S	F		0.17	0.09	0.35	0.39	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.04	0.14	0.32	0.67		0.27	0.26	0.79	1.00
III	Bathing/dressing		0.00	0.03	0.06	0.14		0.17	0.17	0.51	0.57
IV	Food preparation activities		0.14	0.13	0.40	0.43		0.31	0.19	0.69	0.71
V	Shopping		0.15	0.31	0.77	1.33		0.22	0.28	0.78	1.00
VI	Home activities		0.18	0.36	0.90	1.50		1.23	0.56	2.35*	2.00
VII	Health, safety and medication use		0.06	0.12	0.30	0.43		0.34	0.28	0.90	1.17
VIII	Money management		0.03	0.09	0.21	0.33		0.11	0.19	0.49	0.67
IX	Everyday devices		0.00	0.00	0	0.00		0.04	0.12	0.28	0.50
X	Transport and outdoor surfaces		0.10	0.15	0.40	0.50		0.17	0.21	0.59	0.75
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.13	0.21	0.55	0.83
XII	Leisure, recreation and play		0.10	0.15	0.40	0.50		0.21	0.16	0.53	0.50
XIII	School		0.05	0.10	0.25	0.40		0.34	0.33	1.00	1.15

*Note: this is the actual score that is 2 SD above the mean, but it exceeds the maximum score of 2

PCANS-2 Summary Score Form (13 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		0.73	0.69	2.11	2.86	24
Extent of support: Physical assistance	B		0.06	0.06	0.18	0.24	2
Intensity of support: Supervision	C		2.64	1.17	4.98	4.88	26
Extent of support: Supervision	D		0.20	0.09	0.38	0.38	2
Overall intensity of support for PA and S	E		3.37	1.57	6.51	6.95	50
Overall extent of support for PA and S	F		0.13	0.06	0.25	0.28	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.01	0.03	0.07	0.17		0.19	0.22	0.63	1.00
III	Bathing/dressing		0.00	0.03	0.06	0.14		0.10	0.11	0.32	0.43
IV	Food preparation activities		0.11	0.14	0.39	0.50		0.23	0.16	0.55	0.63
V	Shopping		0.13	0.21	0.55	0.75		0.12	0.20	0.52	0.75
VI	Home activities		0.14	0.28	0.70	1.00		0.86	0.54	1.94	2.00
VII	Health, safety and medication use		0.03	0.08	0.19	0.29		0.25	0.21	0.67	0.63
VIII	Money management		0.06	0.17	0.40	0.60		0.16	0.26	0.68	1.00
IX	Everyday devices		0.01	0.05	0.11	0.25		0.02	0.06	0.14	0.25
X	Transport and outdoor surfaces		0.04	0.10	0.24	0.43		0.08	0.14	0.36	0.50
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.13	0.18	0.49	0.83
XII	Leisure, recreation and play		0.10	0.14	0.38	0.50		0.22	0.19	0.60	0.57
XIII	School		0.09	0.16	0.41	0.62		0.26	0.23	0.72	0.85

PCANS-2 Summary Score Form (14 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		0.68	0.82	2.32	3.15	24
Extent of support: Physical assistance	B		0.06	0.07	0.20	0.26	2
Intensity of support: Supervision	C		2.83	1.36	5.55	7.07	26
Extent of support: Supervision	D		0.22	0.10	0.42	0.54	2
Overall intensity of support for PA and S	E		3.51	1.89	7.29	8.19	50
Overall extent of support for PA and S	F		0.14	0.07	0.28	0.32	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0.00	0.03	0.06	0.14		0.14	0.16	0.46	0.50
III	Bathing/dressing		0.00	0.00	0.00	0.00		0.14	0.17	0.48	0.71
IV	Food preparation activities		0.03	0.06	0.15	0.14		0.20	0.16	0.52	0.57
V	Shopping		0.15	0.32	0.79	1.33		0.15	0.24	0.63	1.00
VI	Home activities		0.15	0.33	0.81	1.25		0.90	0.52	1.94	2.00
VII	Health, safety and medication use		0.04	0.12	0.28	0.57		0.29	0.28	0.85	1.13
VIII	Money management		0.07	0.16	0.39	0.57		0.17	0.28	0.73	1.00
IX	Everyday devices		0.01	0.05	0.11	0.25		0.02	0.09	0.20	0.50
X	Transport and outdoor surfaces		0.06	0.13	0.32	0.43		0.08	0.14	0.36	0.50
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.15	0.20	0.55	0.67
XII	Leisure, recreation and play		0.10	0.16	0.42	0.16		0.26	0.23	0.72	0.88
XIII	School		0.07	0.11	0.29	0.42		0.34	0.26	0.86	1.13

Paediatric Care and Needs Scale 2

Client name: _____
Date of interview: _____
DOB: _____ Age: _____
Date of ABI: _____
Cause of ABI: _____
GCS/PTA/Severity (if known/applicable): _____
Informant type: Parent / Other: _____
Date of last PCANS-2: _____
Current examiner's name: _____
Have you attended PCANS-2 training: Yes / No



PCANS-2

RECORD

FORM D

15 years

Instructions:

This questionnaire focuses on a range of activities children perform every day. For each activity please indicate:

- (1) Whether your child requires:
 - i. Physical assistance – someone to do the activity for them, hands-on assistance, help with set-up;
AND/OR
 - ii. Supervision - verbal prompts or indirect supervision
- (2) If no supports are needed then
0 = “none”
- (3) If your child requires physical assistance and/or supervision for that activity, please indicate whether the level they require is:
 - 1 = “some” or**
 - 2 = “a lot”**

These supports may be provided by the parent/caregiver, a family member, a teacher, an external service or other. Each rating is made according to how things are for your child now.

Note to clinician: For each applicable item, enter a score (0, 1, or 2) in both Physical assistance and Supervision sections.

Influence of other Factors on Item Score
In the column “Other influences” record the presence of factors pertinent to any item that are not resultant from the child’s ABI using the following abbreviations:
C=cultural beliefs or habits
N=non-ABI factors such as fractures, spinal cord injury occurring concurrently to the ABI
Pre=pre-existing health, medical, learning or developmental problems
O=other influences.
EXPLAIN ANY SUCH FACTORS FOR THIS CHILD _____

PCANS 2 FORM D – 15 years

Please consult manual for detailed item definitions

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE	Phys. Assistance	Supervision	Comments	Other Influences
Domain I. High level needs: Does your child require support (physical assistance or supervision) for the following?	PA	S	* Items 1-3 scored as 0=not a problem 2=needs support	
1. Tracheostomy management * Items 1-3 are scored as 0 or 2. Please circle correct score. If PA =2 then S score =2 by default for items 1-3 only.	0/2	0/2		
2. Nasogastric/PEG feeding *	0/2	0/2		
3. Bed mobility if unable to independently turn over in bed *	0/2	0/2		
4. Management of wandering behaviour				
5. Management of harmful behaviour (exhibits behaviours that have the potential to cause harm to self or others)				
6. Communicating basic needs due to language impairments				
7. Eating				
8. Transfers/indoor mobility				
Total raw score: Domain I. High level needs				

* Items 1-3 are scored as 0 or 2. Please circle correct score

Domain II. Personal hygiene: Does your child require support (physical assistance or supervision) for the following?	PA	S		
IND 9. Continence: bladder and bowel during day				
IND 10. Continence: bladder and bowel during night				
IND 11. Toileting (includes hygiene and clothes management)				
IND 12. Washing face/hands				
IND 13. Brushing or combing hair				
IND 14. Cleaning/brushing teeth				
IND 15. Period management, shaving (if appropriate)				
Total raw score: Domain II. Personal Hygiene				

Domain III. Bathing/dressing: Does your child require support (physical assistance or supervision) for the following?	PA	S		
IND 16. Simple dressing and undressing including doing fasteners (e.g. buttons and zips)				
IND 17. Dressing to suit the occasion				
IND 18. Washing self in bath/shower				
IND 19. Putting on socks and shoes including fasteners (e.g. shoelaces)				
IND 20. Washing hair				
IND 21. Forethought to ensure bath/shower safety (e.g. water temperature)				
EM 22. Dressing to suit the weather				
Total raw score: Domain III. Bathing/dressing				

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): <u>Physical assistance (fully assisted in doing activity, or hands-on help/set up):</u> 0 = independent 1 = needs some assistance 2 = needs a lot of assistance <u>Supervision (needs verbal prompts or indirect supervision):</u> 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other influences
Domain IV. Food preparation activities: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	23. Using cups				
IND	24. Preparing simple snacks (no cooking or mixing involved)				
IND	25. Using cutlery				
IND	26. Using jugs/carton/bottles (including when full/heavy)				
IND	27. Using microwave/simple heating up of food				
IND	28. Setting table, clearing table				
EM	29. Cooking simple foods				
EM	30. Preparing and cooking a hot meal				
Total raw score: Domain IV. Food preparation activities					

Domain V. Shopping: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	31. Simple shopping (school canteen)				
IND	32. Shopping at local shops				
IND	33. Shopping with a prepared shopping list				
EM	34. Buying ingredients for preparing main meal				
EM	35. Generating and using a shopping list				
Total raw score: Domain V. Shopping					

Domain VI. Home activities: Please describe your child's regular chores: <hr/> Does your child require support (physical assistance or supervision) for the following?		PA	S		
EM	36. Placing clothes in laundry basket, putting clothes away in cupboard/drawers				
EM	37. Keeping tidy main living areas of home (their own belongings, toys)				
EM	38. Tidying and cleaning own bedroom				
EM	39. Making own bed				
EM	40. Doing regular chores for which they are responsible (e.g. taking out garbage)				
EM	41. Washing up dishes				
Total raw score: Domain VI. Home activities					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain VII. Health, safety and medication use: Please indicate the child's regular medications (if applicable): _____ _____		PA	S		
Does your child require support (physical assistance or supervision for the following)?					
IND	42. Independently seeking adult support and guidance when needed				
IND	43. Following rules and safety precautions at school and in the community				
IND	44. Following safety precautions at home				
IND	45. Responding to novel/emergency situations				
IND	46. Dealing with vulnerability risks (e.g. opening front door to strangers & letting them in)				
EM	47. Using the internet safely (including understanding privacy issues, restricted sites)				
EM	48. Responsible behaviour regarding drugs, alcohol or sex				
EM	49. Understanding and managing sexually transmitted diseases				
EM	50. Able to use own (regular) medications				
EM	51. Making and keeping health/medical appointments				
Total raw score: Domain VII. Health, safety and medication use					

Domain VIII. Money management: Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	52. Counting change accurately				
IND	53. Saving for at least one major purchase				
IND	54. Earning pocket money				
EM	55. Understanding concept of repaying loans from own pocket money				
EM	56. Having simple job such as paper round or delivering pamphlets (usually no money exchange involved)				
EM	57. Babysitting and/or looking after younger siblings				
EM	58. Accessing a bank account				
EM	59. Responsibly using own bank account (e.g. EFTPOS, ATM, internet banking)				
Total raw score: Domain VIII. Money management					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): <u>Physical assistance (fully assisted in doing activity, or hands-on help/set up):</u> 0 = independent 1 = needs some assistance 2 = needs a lot of assistance <u>Supervision (needs verbal prompts or indirect supervision):</u> 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain IX. <u>Everyday devices:</u> Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	60. Simple use of everyday equipment (e.g. simple use of TV, video, DVD, computer [including computer games], simple email/mobile use)				
IND	61. Simple telephone use including answering phone calls at home (e.g. getting the right person for the call and taking messages)				
IND	62. Dialling emergency numbers (understands concept)				
IND	63. Using home phone routinely and appropriately (e.g. including making and answering calls, understanding about cost of calls)				
Total raw score: Domain IX. Everyday devices					

Domain X. <u>Transport and outdoor surfaces:</u> Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	64. Getting in and out of the car				
IND	65. Getting around in outside areas of the home, e.g. in the driveway, up and down the stairs				
IND	66. Fastening seat belts				
IND	67. Road crossing (adequate understanding/judging of speed and time of approaching vehicles)				
IND	68. Getting on and off bus				
IND	69. Getting on and off train or tram				
EM	70. Catching public transport to school and familiar places				
EM	71. Using public transport to get to unfamiliar places/complicated destinations				
Total raw score: Domain X. Transport and outdoor surfaces					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain XI. <u>Interpersonal relationships:</u> Does your child require support (supervision and guidance) for the following?		PA	S	PA not scored for Interpersonal Relationships domain	
IND	72. Having age-appropriate behaviour in the classroom				
IND	73. Having age-appropriate behaviour at home				
IND	74. Forming friendships: Having a friend/s for 1 week to 1 term				
IND	75. Interacting appropriately with younger children				
IND	76. Maintaining friendships: Having established friend/s (i.e. for more than a year)				
IND	77. Having appropriate manners in public				
IND	78. Other centredness: Reading situation/non-verbal cues from others (e.g. knows when to stop annoying behaviour)				
IND	79. Interacting appropriately within peer group				
IND	80. Having appropriate impulse control while playing				
EM	81. Conversation appropriateness: Turn-taking in conversations (not too talkative/quiet)				
EM	82. Monitoring own behaviour when interacting with others in public				
EM	83. Tactfulness and sensitivity (e.g. not making statements that may embarrass or offend others)				
EM	84. Having appropriate intimate interactions with peers				
Total raw score: Domain XI. Interpersonal relationships					

Domain XII. <u>Leisure, recreation and play:</u> Does your child require support (physical assistance or supervision) for the following?		PA	S		
IND	85. Initiating play and being cooperative in small groups (two or three children)				
IND	86. Turn-taking while playing in large groups (four or more children)				
IND	87. Playing alone (includes initiating, planning and maintaining play)				
IND	88. Simple use of the internet (e.g. pre-selected sites)				
IND	89. Having a hobby or interest				
IND	90. Participating in non-school activities (e.g. sports)				
EM	91. Time management and planning for recreational/school projects				
EM	92. Practical organising of recreational activities for a group of friends including use of timetables (e.g. going to the movies)				
Total raw score: Domain XII. Leisure, recreation and play					

Scoring instructions for clinicians Items where expect independence (IND; white boxes) and emerging skills (EM, pale grey boxes): Physical assistance (fully assisted in doing activity, or hands-on help/set up): 0 = independent 1 = needs some assistance 2 = needs a lot of assistance Supervision (needs verbal prompts or indirect supervision): 0 = independent 1 = needs some supervision 2 = needs a lot of supervision ITEMS WHERE SKILLS NOT EXPECTED (NE; DARK GREY BOXES): DO NOT SCORE		Phys. Assistance	Supervision	Comments	Other Influences
Domain XIII. School: Please indicate if child needs and/or receives integration support or other informal educational support (tick): <input type="checkbox"/> None <input type="checkbox"/> Needed <input type="checkbox"/> Received Please specify: _____ Does your child require support (physical assistance or supervision for the following)?		PA	S		
IND	93. Paying attention for at least 15 minutes during class				
IND	94. Writing short notes				
IND	95. Understanding written notes				
IND	96. Giving correct name (Y/N), address (Y/N) and telephone number (Y/N)				
IND	97. Responding to multi-step instructions – at least 2-3 components				
IND	98. Packing school bag appropriately (e.g. lunch, books, sports gear)				
IND	99. Telling the time				
IND	100. Getting to school on time				
EM	101. Working appropriately at school tasks (e.g. not becoming discouraged/quitting, stays on task)				
EM	102. Completing homework				
EM	103. Following school timetable (if appropriate)				
EM	104. Using calendar/desk diary				
EM	105. Filling out application form or writing a formal/application letter				
Total raw score: Domain XIII. School					

Does your child require supports in any areas that have not been covered by this questionnaire?
Please specify:

Paediatric Care and Needs Scale (PCANS-2)

Scoring Work Sheet for Form D

Name:

Date:

	Column 1	Column 2	Column 3	Column 4	Column 5
Domain	Raw score (transfer from record form)	Number of applicable items	No. of items actually administered (if differs from column 2)	Raw score (col. 1) divided by # of items actually administered (column 2 or 3)	Domain Mean score (Type of support needs; possible score range 0-2) to 2 decimal places
1. Physical Assistance					
I: High level		8		____/____	
II: Personal hygiene		6 or 7		____/____	
III: Bathing / dressing		7		____/____	
IV: Food preparation		8		____/____	
V: Shopping		5		____/____	
VI: Home activities		6		____/____	
VII: Health, safety & meds		9		____/____	
VIII: Money management		8		____/____	
IX: Everyday devices		4		____/____	
X: Transport & outdoors		8		____/____	
XI: Relationships	Not scored				
XII: Leisure, rec & play		8		____/____	
XIII: School		13		____/____	
	Intensity of support needs for Physical Assistance score (sum of scores in Column 5; possible score range 0-24)				(A)
	Extent of support needs for Physical Assistance score [mean of: Intensity total (A) ÷ number of domains (n=12)] (possible score range 0-2)				(B)
2. Supervision					
I: High level		8		____/____	
II: Personal hygiene		6 or 7		____/____	
III: Bathing / dressing		7		____/____	
IV: Food preparation		8		____/____	
V: Shopping		5		____/____	
VI: Home activities		6		____/____	
VII: Health, safety & meds		10		____/____	
VIII: Money management		8		____/____	
IX: Everyday devices		4		____/____	
X: Transport & outdoors		8		____/____	
XI: Relationships		13		____/____	
XII: Leisure, rec & play		8		____/____	
XIII: School		13		____/____	
	Intensity of support needs for Supervision score (sum of scores in Column 5; possible score range 0-26)				(C)
	Extent of support needs for Supervision score [mean of: Intensity total (C) ÷ number of domains (n=13)] (possible score range 0-2)				(D)
	Overall Intensity of support needs for Physical Assistance and Supervision score: A + C (sum of above scores; possible score range 0-50)				(E)
	Overall Extent of support needs for Physical Assistance and Supervision score (B + D) ÷ 2 (possible score range 0-2)				(F)

NOTE: All calculations correct to 2 decimal places

PCANS-2 Summary Score Form (15 year old)

Child's name:

Date of assessment:

Assessed by:

School year:

MRN:

Summary Score Interpretation

Score	Score reference	Child's score	Age Mean	Age SD	Score 2 SD above age mean	Maximum score of norms for age group	Maximum possible score
Intensity of support: Physical assistance	A		0.36	0.32	1.00	0.98	24
Extent of support: Physical assistance	B		0.03	0.03	0.09	0.08	2
Intensity of support: Supervision	C		1.89	1.14	4.17	5.63	26
Extent of support: Supervision	D		0.15	0.09	0.33	0.43	2
Overall intensity of support for PA and S	E		2.25	1.33	4.91	6.22	50
Overall extent of support for PA and S	F		0.09	0.05	0.19	0.24	2

Domain Score Interpretation (maximum score =2)

	Domain	PHYSICAL ASSISTANCE (PA)					SUPERVISION				
		Child's PA score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age	Child's Supervision score	Age mean	Age SD	Score 2 SD above age mean	Max score of norms for age
I	High level needs		-	-	-	-		-	-	-	-
II	Personal hygiene		0	0	0	0		0.05	0.12	0.29	0.50
III	Bathing/dressing		0	0	0	0		0.08	0.14	0.36	0.57
IV	Food preparation activities		0.02	0.06	0.14	0.25		0.11	0.10	0.31	0.38
V	Shopping		0.02	0.75	1.52	0.33		0.08	0.14	0.36	0.40
VI	Home activities		0.07	0.15	0.37	0.60		0.70	0.53	1.76	2.0
VII	Health, safety and medication use		0.09	0.12	0.33	0.44		0.25	0.20	0.65	0.75
VIII	Money management		0.07	0.12	0.31	0.33		0.11	0.16	0.43	0.67
IX	Everyday devices		0	0	0	0		0.03	0.10	0.23	0.50
X	Transport and outdoor surfaces		0.04	0.09	0.22	0.38		0.08	0.15	0.38	0.75
XI	Interpersonal relationships	N/A	N/A	N/A	N/A	N/A		0.10	0.16	0.42	0.69
XII	Leisure, recreation and play		0.03	0.06	0.15	0.25		0.13	0.10	0.33	0.38
XIII	School		0.03	0.06	0.15	0.23		0.20	0.18	0.56	0.77

Appendix D – Paediatric Care and Needs Scale 2 – Normative Data Tables

Table I: Mean, SD and range for PCANS-2 Summary Scores according to age groups

Age		N	Mean	Std. Deviation	Min	Max
5	Intensity of support - P (Score A)	15	4.85	2.48	1.07	10.88
	Extent of support - P (Score B)	15	0.40	0.21	0.09	0.91
	Intensity of support - S (Score C)	15	10.22	1.99	6.38	13.03
	Extent of support - S (Score D)	15	0.79	0.15	0.49	1.00
	Overall intensity of support (Score E)	15	15.06	3.36	9.99	22.38
	Overall extent of support (Score F)	15	0.59	0.14	0.39	0.90
6	Intensity of support - P (Score A)	27	4.19	2.56	0.78	9.07
	Extent of support - P (Score B)	27	0.35	0.21	0.06	0.76
	Intensity of support - S (Score C)	27	7.16	1.95	4.09	11.44
	Extent of support - S (Score D)	27	0.55	0.15	0.31	0.88
	Overall intensity of support (Score E)	27	11.35	4.17	5.78	20.51
	Overall extent of support (Score F)	27	0.45	0.17	0.23	0.82
7	Intensity of support - P (Score A)	27	3.50	2.54	0.00	9.42
	Extent of support - P (Score B)	27	0.29	0.21	0.00	0.78
	Intensity of support - S (Score C)	27	6.12	2.35	1.82	11.40
	Extent of support - S (Score D)	27	0.47	0.18	0.14	0.88
	Overall intensity of support (Score E)	27	9.62	4.63	2.13	19.11
	Overall extent of support (Score F)	27	0.38	0.19	0.08	0.77
8	Intensity of support - P (Score A)	27	1.94	1.32	0.45	5.90
	Extent of support - P (Score B)	27	0.16	0.11	0.04	0.49
	Intensity of support - S (Score C)	27	5.26	2.04	1.54	9.40
	Extent of support - S (Score D)	27	0.40	0.16	0.12	0.72
	Overall intensity of support (Score E)	27	7.20	3.01	1.99	15.29
	Overall extent of support (Score F)	27	0.28	0.12	0.08	0.61
9	Intensity of support - P (Score A)	29	1.53	1.26	0.17	5.13
	Extent of support - P (Score B)	29	0.13	0.10	0.01	0.43
	Intensity of support - S (Score C)	29	4.88	1.90	1.10	9.85
	Extent of support - S (Score D)	29	0.38	0.15	0.08	0.76
	Overall intensity of support (Score E)	29	6.40	2.53	1.29	11.82
	Overall extent of support (Score F)	29	0.25	0.10	0.05	0.47
10	Intensity of support - P (Score A)	29	1.68	1.21	0.00	5.26
	Extent of support - P (Score B)	29	0.14	0.10	0.00	0.44
	Intensity of support - S (Score C)	29	4.07	1.82	1.31	9.41
	Extent of support - S (Score D)	29	0.31	0.14	0.10	0.72
	Overall intensity of support (Score E)	29	5.75	2.62	2.06	12.29
	Overall extent of support (Score F)	29	0.23	0.10	0.08	0.49

Table I: Mean, SD and range for PCANS-2 Summary Scores according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
11	Intensity of support - P (Score A)	30	1.07	1.16	0.00	5.29
	Extent of support - P (Score B)	30	0.09	0.10	0.00	0.44
	Intensity of support - S (Score C)	30	3.78	1.36	1.00	6.39
	Extent of support - S (Score D)	30	0.29	0.10	0.08	0.49
	Overall intensity of support (Score E)	30	4.85	2.09	1.50	11.48
	Overall extent of support (Score F)	30	0.19	0.08	0.06	0.46
12	Intensity of support - P (Score A)	30	0.86	0.74	0.00	3.06
	Extent of support - P (Score B)	30	0.07	0.06	0.00	0.26
	Intensity of support - S (Score C)	30	3.55	1.75	0.46	7.85
	Extent of support - S (Score D)	30	0.27	0.13	0.04	0.60
	Overall intensity of support (Score E)	30	4.42	2.30	0.61	10.00
	Overall extent of support (Score F)	30	0.17	0.09	0.02	0.39
13	Intensity of support - P (Score A)	30	0.73	0.69	0.00	2.86
	Extent of support - P (Score B)	30	0.06	0.06	0.00	0.24
	Intensity of support - S (Score C)	30	2.64	1.17	0.70	4.88
	Extent of support - S (Score D)	30	0.20	0.09	0.05	0.38
	Overall intensity of support (Score E)	30	3.37	1.57	0.70	6.95
	Overall extent of support (Score F)	30	0.13	0.06	0.03	0.28
14	Intensity of support - P (Score A)	30	0.68	0.82	0.00	3.15
	Extent of support - P (Score B)	30	0.06	0.07	0.00	0.26
	Intensity of support - S (Score C)	30	2.83	1.36	0.99	7.07
	Extent of support - S (Score D)	30	0.22	0.10	0.08	0.54
	Overall intensity of support (Score E)	30	3.51	1.89	0.99	8.19
	Overall extent of support (Score F)	30	0.14	0.07	0.04	0.32
15	Intensity of support - P (Score A)	30	0.36	0.32	0	0.98
	Extent of support - P (Score B)	30	0.03	0.03	0	0.08
	Intensity of support - S (Score C)	30	1.89	1.14	0.23	5.63
	Extent of support - S (Score D)	30	0.15	0.09	0.02	0.43
	Overall intensity of support (Score E)	30	2.25	1.33	0.23	6.22
	Overall extent of support (Score F)	30	0.09	0.05	0.01	0.24

Table II: Mean, SD and range for PCANS-2 domains for Physical Assistance items according to age groups

Age		N	Mean	Std. Deviation	Min	Max
5	I. High level needs*	-	-	-	-	-
	II. Personal hygiene	30	0.39	0.29	0.00	1.00
	III. Bathing/dressing	30	0.62	0.36	0.00	1.25
	IV. Food preparation activities	30	0.40	0.27	0.00	1.00
	V. Shopping	18	0.31	0.62	0.00	2.00
	VI. Home activities	29	0.32	0.54	0.00	1.75
	VII. Health, safety and medication use	30	0.25	0.31	0.00	1.20
	VIII. Money management	24	1.27	0.75	0.00	2.00
	IX. Everyday devices	30	0.33	0.45	0.00	1.50
	X. Transport and outdoor surfaces	30	0.43	0.27	0.00	1.00
	XI. Interpersonal relationships#	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.16	0.24	0.00	1.00
	XIII. School	30	0.42	0.29	0.00	1.07
6	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.22	0.26	0.00	1.17
	III. Bathing/dressing	30	0.67	0.47	0.00	1.86
	IV. Food preparation activities	30	0.33	0.25	0.00	0.86
	V. Shopping	27	0.26	0.42	0.00	1.00
	VI. Home activities	30	0.45	0.55	0.00	1.60
	VII. Health, safety and medication use	30	0.16	0.23	0.00	0.80
	VIII. Money management	30	0.69	0.68	0.00	2.00
	IX. Everyday devices	30	0.18	0.29	0.00	1.00
	X. Transport and outdoor surfaces	30	0.36	0.33	0.00	1.00
	XI. Interpersonal relationships	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.26	0.29	0.00	0.83
	XIII. School	30	0.48	0.38	0.00	1.30

Table II: Mean, SD and range for PCANS-2 domains for Physical Assistance items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
7	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.18	0.19	0.00	0.50
	III. Bathing/dressing	30	0.49	0.41	0.00	1.33
	IV. Food preparation activities	30	0.27	0.22	0.00	0.80
	V. Shopping	27	0.30	0.65	0.00	2.00
	VI. Home activities	30	0.50	0.60	0.00	1.80
	VII. Health, safety and medication use	30	0.26	0.33	0.00	1.20
	VIII. Money management	30	0.53	0.67	0.00	2.00
	IX. Everyday devices	30	0.22	0.35	0.00	1.00
	X. Transport and outdoor surfaces	30	0.24	0.30	0.00	1.00
	XI. Interpersonal relationships	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.21	0.30	0.00	1.14
	XIII. School	30	0.37	0.35	0.00	1.44
8	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.14	0.20	0.00	0.67
	III. Bathing/dressing	30	0.24	0.27	0.00	0.86
	IV. Food preparation activities	30	0.34	0.27	0.00	1.00
	V. Shopping	27	0.14	0.31	0.00	1.00
	VI. Home activities	30	0.12	0.21	0.00	1.00
	VII. Health, safety and medication use	30	0.12	0.18	0.00	0.50
	VIII. Money management	30	0.15	0.42	0.00	2.00
	IX. Everyday devices	30	0.04	0.12	0.00	0.50
	X. Transport and outdoor surfaces	30	0.25	0.25	0.00	0.83
	XI. Interpersonal relationships	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.19	0.21	0.00	0.67
	XIII. School	30	0.16	0.18	0.00	0.70

Table II: Mean, SD and range for PCANS-2 domains for Physical Assistance items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
9	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.09	0.14	0.00	0.33
	III. Bathing/dressing	30	0.13	0.17	0.00	0.57
	IV. Food preparation activities	30	0.21	0.21	0.00	0.75
	V. Shopping	29	0.27	0.47	0.00	2.00
	VI. Home activities	30	0.22	0.32	0.00	1.00
	VII. Health, safety and medication use	30	0.15	0.24	0.00	0.80
	VIII. Money management	30	0.07	0.21	0.00	1.00
	IX. Everyday devices	30	0.03	0.10	0.00	0.50
	X. Transport and outdoor surfaces	30	0.09	0.22	0.00	0.83
	XI. Interpersonal relationships	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.16	0.20	0.00	0.75
	XIII. School	30	0.13	0.16	0.00	0.50
10	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.05	0.11	0.00	0.33
	III. Bathing/dressing	30	0.07	0.13	0.00	0.57
	IV. Food preparation activities	30	0.19	0.17	0.00	0.57
	V. Shopping	29	0.15	0.25	0.00	0.75
	VI. Home activities	30	0.30	0.38	0.00	1.20
	VII. Health, safety and medication use	30	0.08	0.16	0.00	0.60
	VIII. Money management	30	0.19	0.33	0.00	1.00
	IX. Everyday devices	30	0.08	0.22	0.00	1.00
	X. Transport and outdoor surfaces	30	0.13	0.22	0.00	0.67
	XI. Interpersonal relationships	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.25	0.27	0.00	0.75
	XIII. School	30	0.19	0.23	0.00	0.75

Table II: Mean, SD and range for PCANS-2 domains for Physical Assistance items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
11	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.04	0.08	0.00	0.33
	III. Bathing/dressing	30	0.06	0.16	0.00	0.71
	IV. Food preparation activities	30	0.11	0.14	0.00	0.43
	V. Shopping	30	0.18	0.25	0.00	0.75
	VI. Home activities	30	0.25	0.38	0.00	1.50
	VII. Health, safety and medication use	30	0.10	0.18	0.00	0.60
	VIII. Money management	30	0.11	0.35	0.00	1.33
	IX. Everyday devices	30	0.00	0.00	0.00	0.00
	X. Transport and outdoor surfaces	30	0.04	0.11	0.00	0.33
	XI. Interpersonal relationships	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.11	0.18	0.00	0.67
	XIII. School	30	0.07	0.11	0.00	0.41
12	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.04	0.14	0.00	0.67
	III. Bathing/dressing	30	0.00	0.03	0.00	0.14
	IV. Food preparation activities	30	0.14	0.13	0.00	0.43
	V. Shopping	30	0.15	0.31	0.00	1.33
	VI. Home activities	30	0.18	0.36	0.00	1.50
	VII. Health, safety and medication use	30	0.06	0.12	0.00	0.43
	VIII. Money management	30	0.03	0.09	0.00	0.33
	IX. Everyday devices	30	0.00	0.00	0.00	0.00
	X. Transport and outdoor surfaces	30	0.10	0.15	0.00	0.50
	XI. Interpersonal relationships	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.10	0.15	0.00	0.50
	XIII. School	30	0.05	0.10	0.00	0.40

Table II: Mean, SD and range for PCANS-2 domains for Physical Assistance items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
13	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.01	0.03	0.00	0.17
	III. Bathing/dressing	30	0.00	0.03	0.00	0.14
	IV. Food preparation activities	30	0.11	0.14	0.00	0.50
	V. Shopping	30	0.13	0.21	0.00	0.75
	VI. Home activities	30	0.14	0.28	0.00	1.00
	VII. Health, safety and medication use	30	0.03	0.08	0.00	0.29
	VIII. Money management	30	0.06	0.17	0.00	0.60
	IX. Everyday devices	30	0.01	0.05	0.00	0.25
	X. Transport and outdoor surfaces	30	0.04	0.10	0.00	0.43
	XI. Interpersonal relationships	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.10	0.14	0.00	0.50
	XIII. School	30	0.09	0.16	0.00	0.62
14	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.00	0.03	0.00	0.14
	III. Bathing/dressing	30	0.00	0.00	0.00	0.00
	IV. Food preparation activities	30	0.03	0.06	0.00	0.14
	V. Shopping	30	0.15	0.32	0.00	1.33
	VI. Home activities	30	0.15	0.33	0.00	1.25
	VII. Health, safety and medication use	30	0.04	0.12	0.00	0.57
	VIII. Money management	30	0.07	0.16	0.00	0.57
	IX. Everyday devices	30	0.01	0.05	0.00	0.25
	X. Transport and outdoor surfaces	30	0.06	0.13	0.00	0.43
	XI. Interpersonal relationships	-	-	-	-	-
	XII. Leisure, recreation and play	30	0.10	0.16	0.00	0.63
	XIII. School	30	0.07	0.11	0.00	0.42

Table II: Mean, SD and range for PCANS-2 domains for Physical Assistance items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
15	I. High level needs	-				
	II. Personal hygiene	30	0	0	0	0
	III. Bathing/dressing	30	0	0	0	0
	IV. Food preparation activities	30	0.02	0.06	0	0.25
	V. Shopping	30	0.02	0.08	0	0.33
	VI. Home activities	30	0.07	0.15	0	0.60
	VII. Health, safety and medication use	30	0.09	0.12	0	0.44
	VIII. Money management	30	0.07	0.12	0	0.33
	IX. Everyday devices	30	0	0	0	0
	X. Transport and outdoor surfaces	30	0.04	0.09	0	0.38
	XI. Interpersonal relationships	-				
	XII. Leisure, recreation and play	30	0.03	0.06	0	0.25
	XIII. School	30	0.03	0.06	0	0.23

* Data for the High level needs domain were not collected in the normative study. It is assumed that the normative score for this domain is "0" (independent) given that typically developing children do not need support for items in this domain.

Physical assistance is not scored for Interpersonal relationships items.

Table III: Mean, SD and range for PCANS-2 domains for Supervision items according to age groups

Age		N	Mean	Std. Deviation	Min	Max
5	I. High level needs*	-	-	-	-	-
	II. Personal hygiene	30	0.73	0.30	0.17	1.17
	III. Bathing/dressing	30	0.92	0.45	0.17	2.00
	IV. Food preparation activities	30	0.78	0.33	0.00	1.50
	V. Shopping	18	0.83	0.87	0.00	2.00
	VI. Home activities	29	1.53	0.47	0.33	2.00
	VII. Health, safety and medication use	30	0.70	0.45	0.00	1.60
	VIII. Money management	24	1.46	0.59	0.50	2.00
	IX. Everyday devices	30	0.41	0.47	0.00	1.50
	X. Transport and outdoor surfaces	30	0.72	0.33	0.00	1.33
	XI. Interpersonal relationships	30	0.43	0.23	0.08	0.92
	XII. Leisure, recreation and play	30	0.43	0.29	0.00	1.00
	XIII. School	30	0.93	0.35	0.19	1.57
6	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.52	0.31	0.00	1.17
	III. Bathing/dressing	30	0.83	0.40	0.20	1.86
	IV. Food preparation activities	30	0.52	0.32	0.00	1.20
	V. Shopping	27	0.30	0.52	0.00	2.00
	VI. Home activities	30	1.42	0.48	0.00	2.00
	VII. Health, safety and medication use	30	0.43	0.24	0.00	1.00
	VIII. Money management	30	0.77	0.63	0.00	2.00
	IX. Everyday devices	30	0.23	0.31	0.00	1.00
	X. Transport and outdoor surfaces	30	0.63	0.41	0.00	1.33
	XI. Interpersonal relationships	30	0.35	0.23	0.00	0.90
	XII. Leisure, recreation and play	30	0.38	0.28	0.00	1.00
	XIII. School	30	0.77	0.37	0.10	1.71

Table III: Mean, SD and range for PCANS-2 domains for Supervision items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
7	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.46	0.31	0.00	1.33
	III. Bathing/dressing	30	0.73	0.47	0.00	2.00
	IV. Food preparation activities	30	0.48	0.29	0.00	1.29
	V. Shopping	27	0.33	0.60	0.00	2.00
	VI. Home activities	30	1.24	0.54	0.20	2.00
	VII. Health, safety and medication use	30	0.34	0.30	0.00	1.00
	VIII. Money management	30	0.62	0.69	0.00	2.00
	IX. Everyday devices	30	0.25	0.38	0.00	1.00
	X. Transport and outdoor surfaces	30	0.41	0.32	0.00	1.17
	XI. Interpersonal relationships	30	0.31	0.25	0.00	1.17
	XII. Leisure, recreation and play	30	0.33	0.27	0.00	1.14
	XIII. School	30	0.65	0.33	0.05	1.44
8	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.47	0.23	0.00	1.00
	III. Bathing/dressing	30	0.48	0.39	0.00	1.57
	IV. Food preparation activities	30	0.59	0.33	0.00	1.33
	V. Shopping	27	0.22	0.51	0.00	2.00
	VI. Home activities	30	1.27	0.52	0.40	2.00
	VII. Health, safety and medication use	30	0.45	0.36	0.00	1.60
	VIII. Money management	30	0.25	0.44	0.00	2.00
	IX. Everyday devices	30	0.14	0.20	0.00	0.50
	X. Transport and outdoor surfaces	30	0.48	0.33	0.00	1.00
	XI. Interpersonal relationships	30	0.18	0.20	0.00	0.73
	XII. Leisure, recreation and play	30	0.34	0.21	0.00	0.67
	XIII. School	30	0.54	0.31	0.00	1.30

Table III: Mean, SD and range for PCANS-2 domains for Supervision items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
9	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.39	0.23	0.00	1.00
	III. Bathing/dressing	30	0.40	0.33	0.00	1.43
	IV. Food preparation activities	30	0.44	0.32	0.00	1.33
	V. Shopping	29	0.25	0.43	0.00	1.50
	VI. Home activities	30	1.36	0.49	0.00	2.00
	VII. Health, safety and medication use	30	0.40	0.36	0.00	1.50
	VIII. Money management	30	0.21	0.31	0.00	1.00
	IX. Everyday devices	30	0.05	0.14	0.00	0.50
	X. Transport and outdoor surfaces	30	0.37	0.32	0.00	1.00
	XI. Interpersonal relationships	30	0.20	0.19	0.00	0.75
	XII. Leisure, recreation and play	30	0.32	0.18	0.00	0.75
	XIII. School	30	0.47	0.33	0.00	1.17
10	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.31	0.28	0.00	1.00
	III. Bathing/dressing	30	0.31	0.21	0.00	0.86
	IV. Food preparation activities	30	0.36	0.23	0.00	0.75
	V. Shopping	29	0.16	0.28	0.00	1.00
	VI. Home activities	30	1.15	0.60	0.00	2.00
	VII. Health, safety and medication use	30	0.27	0.35	0.00	1.33
	VIII. Money management	30	0.30	0.37	0.00	1.25
	IX. Everyday devices	30	0.15	0.28	0.00	1.00
	X. Transport and outdoor surfaces	30	0.23	0.32	0.00	1.17
	XI. Interpersonal relationships	30	0.18	0.18	0.00	0.67
	XII. Leisure, recreation and play	30	0.34	0.23	0.00	0.88
	XIII. School	30	0.39	0.29	0.00	0.96

Table III: Mean, SD and range for PCANS-2 domains for Supervision items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
11	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.28	0.26	0.00	0.83
	III. Bathing/dressing	30	0.23	0.23	0.00	0.86
	IV. Food preparation activities	30	0.34	0.20	0.00	0.75
	V. Shopping	30	0.26	0.29	0.00	1.00
	VI. Home activities	30	1.24	0.53	0.00	2.00
	VII. Health, safety and medication use	30	0.28	0.23	0.00	0.83
	VIII. Money management	30	0.21	0.43	0.00	1.67
	IX. Everyday devices	30	0.03	0.09	0.00	0.25
	X. Transport and outdoor surfaces	30	0.15	0.19	0.00	0.67
	XI. Interpersonal relationships	30	0.14	0.20	0.00	0.83
	XII. Leisure, recreation and play	30	0.31	0.18	0.00	0.67
	XIII. School	30	0.32	0.20	0.00	0.77
12	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.27	0.26	0.00	1.00
	III. Bathing/dressing	30	0.17	0.17	0.00	0.57
	IV. Food preparation activities	30	0.31	0.19	0.00	0.71
	V. Shopping	30	0.22	0.28	0.00	1.00
	VI. Home activities	30	1.23	0.56	0.17	2.00
	VII. Health, safety and medication use	30	0.34	0.28	0.00	1.17
	VIII. Money management	30	0.11	0.19	0.00	0.67
	IX. Everyday devices	30	0.04	0.12	0.00	0.50
	X. Transport and outdoor surfaces	30	0.17	0.21	0.00	0.75
	XI. Interpersonal relationships	30	0.13	0.21	0.00	0.83
	XII. Leisure, recreation and play	30	0.21	0.16	0.00	0.50
	XIII. School	30	0.34	0.33	0.00	1.15

Table III: Mean, SD and range for PCANS-2 domains for Supervision items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
13	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.19	0.22	0.00	1.00
	III. Bathing/dressing	30	0.10	0.11	0.00	0.43
	IV. Food preparation activities	30	0.23	0.16	0.00	0.63
	V. Shopping	30	0.12	0.20	0.00	0.75
	VI. Home activities	30	0.86	0.54	0.00	2.00
	VII. Health, safety and medication use	30	0.25	0.21	0.00	0.63
	VIII. Money management	30	0.16	0.26	0.00	1.00
	IX. Everyday devices	30	0.02	0.06	0.00	0.25
	X. Transport and outdoor surfaces	30	0.08	0.14	0.00	0.50
	XI. Interpersonal relationships	30	0.13	0.18	0.00	0.83
	XII. Leisure, recreation and play	30	0.22	0.19	0.00	0.57
	XIII. School	30	0.26	0.23	0.00	0.85
14	I. High level needs	-	-	-	-	-
	II. Personal hygiene	30	0.14	0.16	0.00	0.50
	III. Bathing/dressing	30	0.14	0.17	0.00	0.71
	IV. Food preparation activities	30	0.20	0.16	0.00	0.57
	V. Shopping	30	0.15	0.24	0.00	1.00
	VI. Home activities	30	0.90	0.52	0.00	2.00
	VII. Health, safety and medication use	30	0.29	0.28	0.00	1.13
	VIII. Money management	30	0.17	0.28	0.00	1.00
	IX. Everyday devices	30	0.02	0.09	0.00	0.50
	X. Transport and outdoor surfaces	30	0.08	0.14	0.00	0.50
	XI. Interpersonal relationships	30	0.15	0.20	0.00	0.67
	XII. Leisure, recreation and play	30	0.26	0.23	0.00	0.88
	XIII. School	30	0.34	0.26	0.00	1.13

Table III: Mean, SD and range for PCANS-2 domains for Supervision items according to age groups (continued)

Age		N	Mean	Std. Deviation	Min	Max
15	I. High level needs	-				
	II. Personal hygiene	30	0.05	0.12	0	0.50
	III. Bathing/dressing	30	0.08	0.14	0	0.57
	IV. Food preparation activities	30	0.11	0.10	0	0.38
	V. Shopping	30	0.08	0.14	0	0.40
	VI. Home activities	30	0.70	0.53	0	2.0
	VII. Health, safety and medication use	30	0.25	0.20	0	0.75
	VIII. Money management	30	0.11	0.16	0	0.67
	IX. Everyday devices	30	0.03	0.10	0	0.50
	X. Transport and outdoor surfaces	30	0.08	0.15	0	0.75
	XI. Interpersonal relationships	30	0.10	0.16	0	0.69
	XII. Leisure, recreation and play	30	0.13	0.10	0	0.38
	XIII. School	30	0.20	0.18	0	0.77

* Data for the High level needs domain were not collected in the normative study. It is assumed that the normative score for this domain is "0" (independent) given that typically developing children do not need support for items in this domain.