Brain Injury Services
Hamilton • Haldimand-Norfolk • Niagara

Adaptive Behaviour Scale – Residential and Community (ABS-RC: 2)

Summary of Data for January 2005 – December 2007

April 15, 2008

An organizational focus on education and training for participants has become imperative over the last several years. Using a blend of skill training and behavioural approaches, Brain Injury Services works with the participants and his/her family members to provide a variety of opportunities for skill enhancement. To assess skill development, Brain Injury Services utilizes an assessment tool, The Adaptive Behavior Scale: Residential and Community, Version 2 (ABS-RC: 2). This summary outlines data that has been compiled over the last three years.

The ABS: RC-2 is a 118 item standardized and normed checklist of skills, abilities and problematic behaviour that is completed by a person familiar with the participant being assessed. It is composed of 18 subscales that are divided into two domains, 10 skill subscales and 8 behaviour subscales. The purpose of administering the ABS-RC: 2 is to assess functional skills, abilities and behaviour for purposes of planning and evaluating the effectiveness of community based rehabilitation with adults with acquired brain injury living in the community. The domain areas identified by the assessment often relate to ABI neuro-cognitive deficits and can be used in developing goals and objectives for individual program plans.

With the help of Dr. Bruce Linder, clinical psychologist at Brain Injury Services, and McMaster University students, past research endeavors have provided normative information for adults with acquired brain injury living in the community. Community-based ABI norms for the ABS-RC: 2 were initially based upon a group of 126 adults in year 2000 that included BISH participants, participants in one other community-based ABI agency in Southern Ontario, and individuals on a waiting list for Brain Injury Services during the year 2003. This served as a basis for computing annual scores in comparison to a larger and more diverse group of ABI individuals.

To assist Brain Injury Services staff, a manual titled “Guidelines for Using and Interpreting the Adaptive Behaviour Scales for Programming at Brain Injury Services of Hamilton” was developed. Each year, staff at Brain Injury Services are required to participate in training sessions to expand their knowledge and understanding of the ABS-RC: 2 and to explore how it can be used as a valuable assessment and program development tool.

The annual assessments at Brain Injury Services were conducted from 2005 to 2007. This involved a total of approximately 278 assessments (138 participants).

ABS-RC: 2 Data Analyses

The results can be presented to answer three questions: (1) How have the skills and behavioural challenges of the agency's participants changed over time; (2) How do the different programs compare in terms of participant skills and behavioural challenges. (3) How have the skills and behavioural problems changed over time for the participants in each program.

Agency Change over Time

Figure 1 below provides the results of all agency participants over the three years of data collection. Overall skills and behavioural challenges are expressed as "standards scores". Standard scores show how much scores deviate from the average for a population, in this case a large group of adults with acquired brain injury living in the community. The average range is 90 to 109; anything above or below this range is above or below average statistically. As can be seen both skills and behavioural challenges remained in the average range over the three years with no significant trend. Therefore, there was no evidence of change in skills or behavioural challenges for the population of 138 individuals overall.

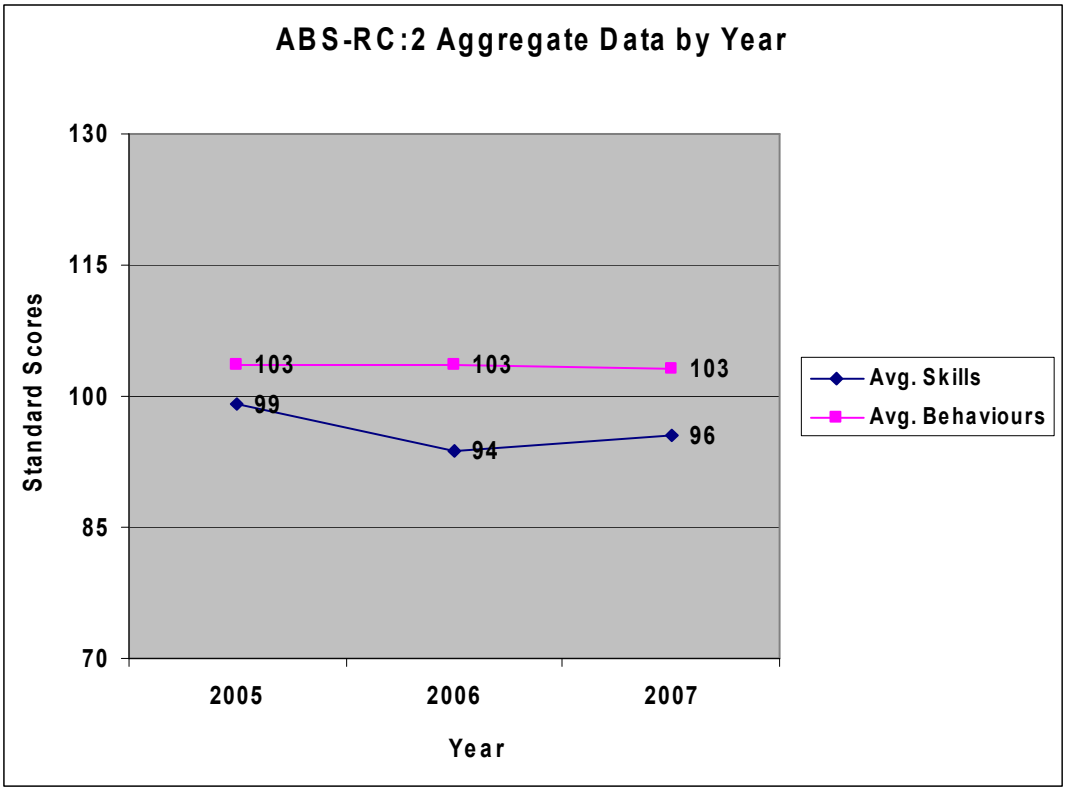
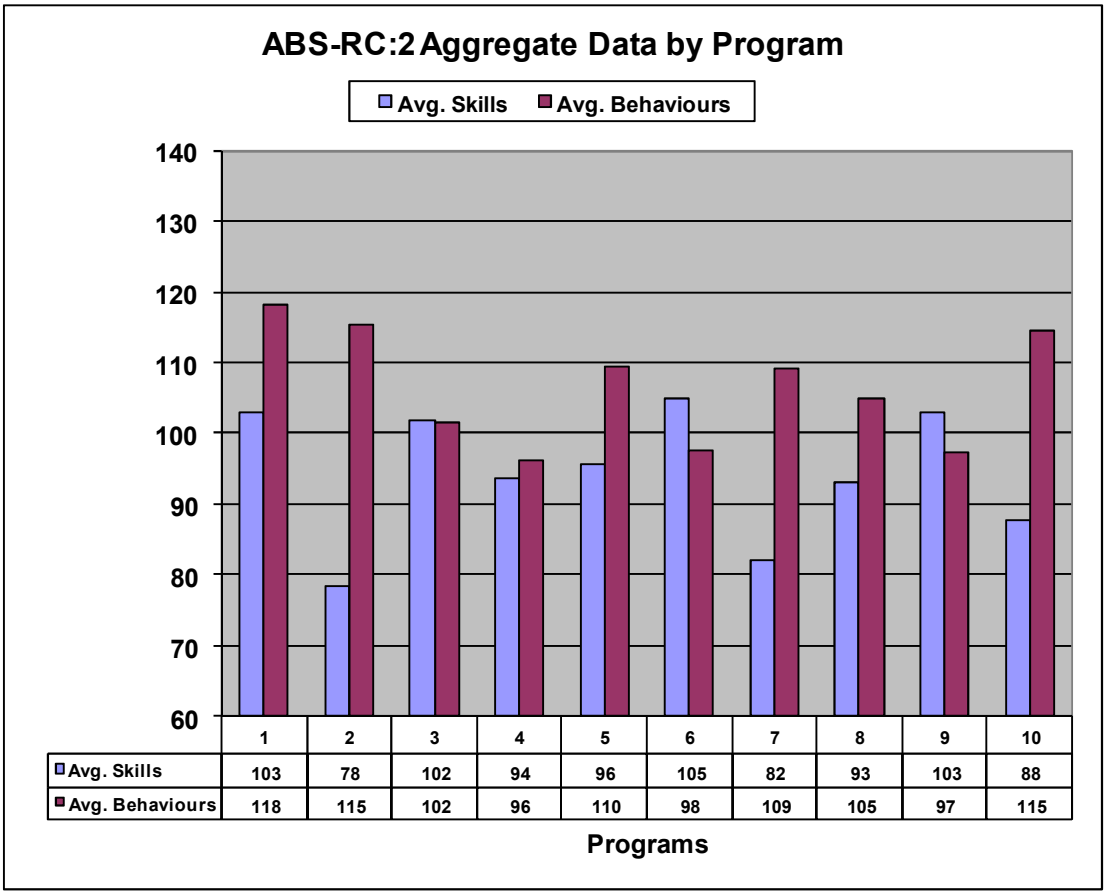


Figure 1

Comparison of Programs

Figure 2 below provides the standard scores for skills and behavioural challenges for each program. Not surprisingly, and as can be seen, there were sizable differences in the skills and levels of behavioural challenges between the programs.

The figure below illustrates the statistically significant differences in both ADL skill and behaviour scores across the ten different services. For example, the range in ADL skill scores across services was 27 with standard scores from 78 to 105; the range in behaviour scores across services was 22 with standard scores from 96 to 118. Interestingly, there was a significant negative correlation between ADL skills and behaviour across services (r = -0.45), meaning that services with higher than average behaviour scores tended to have lower than average ADL skill scores. This finding is consistent with theories that emphasize skill-deficits (e.g. communication, leisure, cognitive) as a contributing causal factor to the development of behaviour disorder in disabled populations.



	1	2	3	4	5	6	7	8	9	10
Avg. Skills	103	78	102	94	96	105	82	93	103	88
Avg. Behaviours	118	115	102	96	110	98	109	105	97	115

Figure 2

Program Change over Time

When reviewing individual program data regarding change over time, significant increases and decreases (of at least 10 points) were found in four programs. One program demonstrated a significant decrease in both behavioural challenges and skills. Another demonstrated a significant decrease in behavioural challenges. The third program demonstrated a significant increase is skills while the fourth program demonstrated a decrease in skills.

By and large, the remaining programs exhibited limited change in skills and behavioural challenges.

In summary, the ABS-RC: 2 is a useful tool for assessing functional skills, abilities and behaviour for the purposes of planning and evaluating the effectiveness of community based rehabilitation with adults with acquired brain injury. Staff at Brain Injury Services will continue to collect annual data to track participant progress, but also to expand the data base for our understanding of long-term skill development, functional independence, and behavioural difficulties for ABI individuals living in the community.

For more information or to view the appendix accompanying this report, please contact: info@braininjuryservices.com