

PARTICIPANT 1

Age: 61 | **Gender:** F | **Education Level:** Associate Degree | **Years Post-TBI:** 5

Beginning FCA Level

Level 5 FCA Focus:

“Navigating Beyond the Room”

- Navigating to various locations on multiple floors of the building
- Complete tasks during scavenger hunt to utilize divided attention
- Problem solving to complete schedule on time

Ending FCA Level

Level 7 FCA Focus:

“Out the Door”

- Revise self-made schedule and estimate travel time
- Determine an efficient route to an unfamiliar destination
- Anticipate consequences of decisions

Level 5 FCA Participant Strategies:

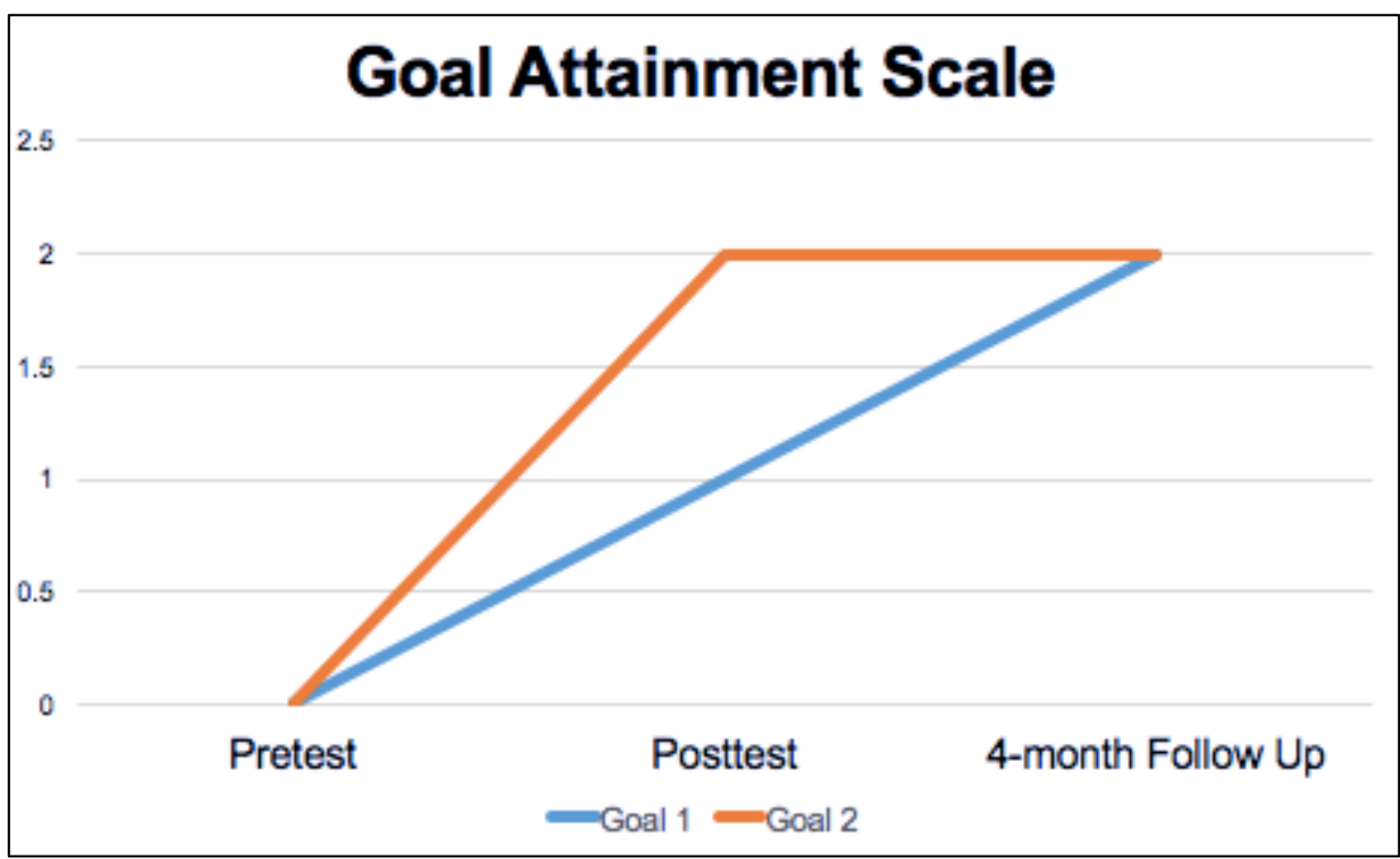
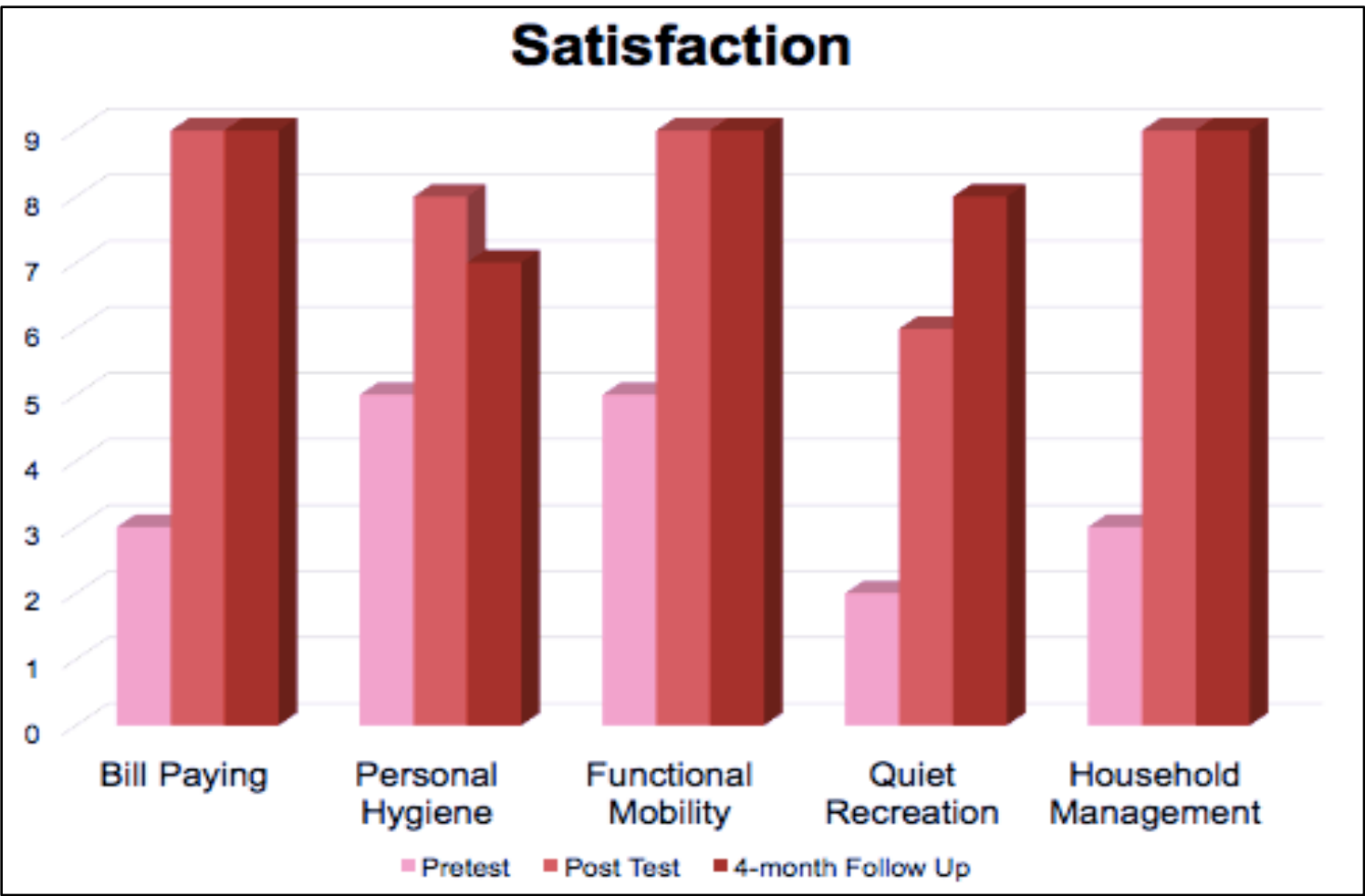
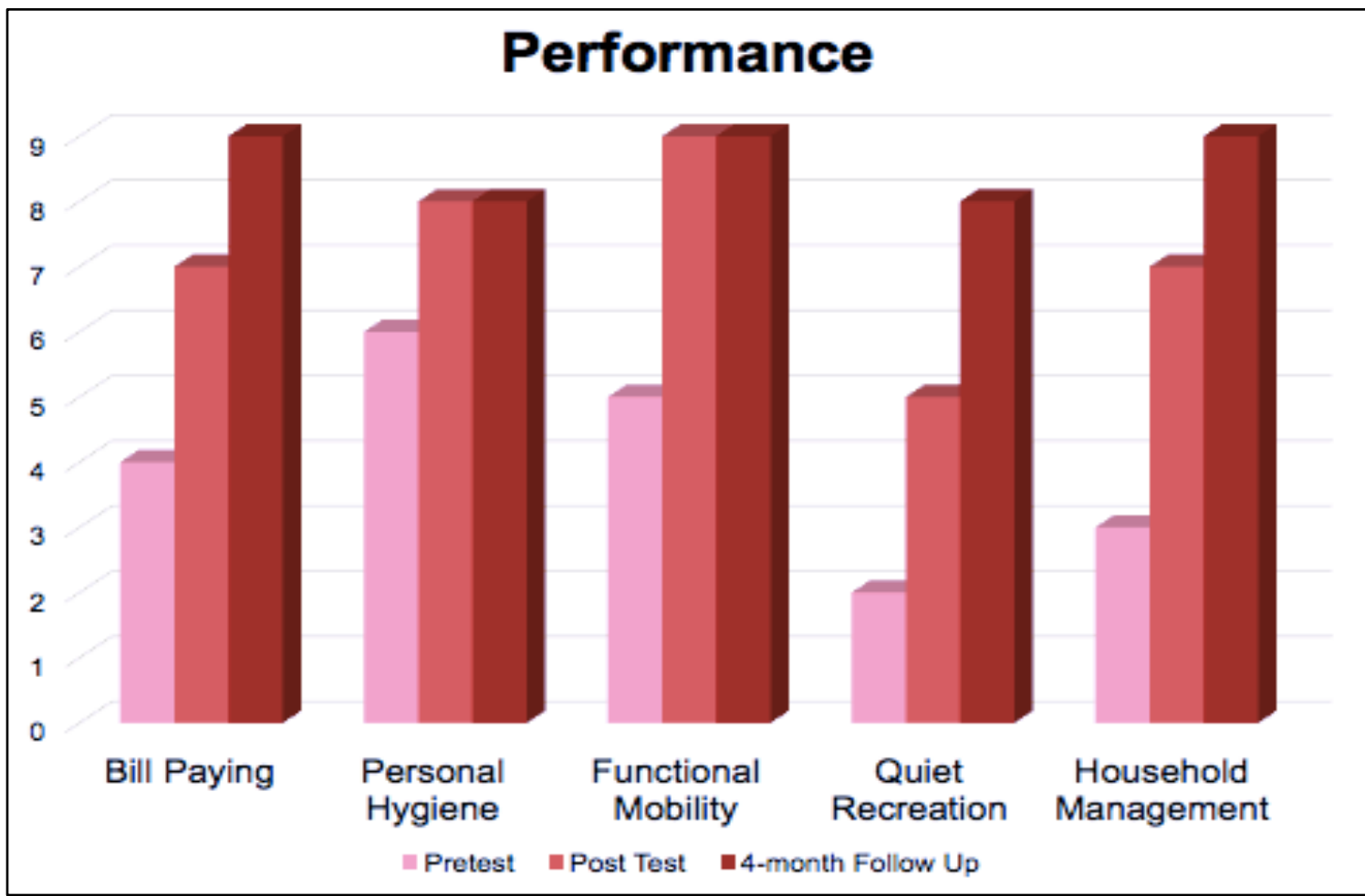
- Use a map to navigate
- Take notes on verbal instructions
- Ask clarifying questions

Level 7 FCA Participant Strategies:

- Take mental breaks
- Give extra time for tasks than expected
- Use positive self talk as encouragement

RESULTS

Canadian Occupational Performance Measure



PARTICIPANT QUOTE

“I can’t imagine how life would be without having this program.”

FUNCTIONAL COGNITIVE ACTIVITIES APPROACH

The Functional Cognitive Activities (FCA) approach was developed to improve everyday occupational performance in adults with TBI through the utilization of a task-centered approach involving the three global elements. The FCA approach is designed to generalize learned skills in a therapy setting in order to engage in meaningful occupations across a variety of context. The purpose of these pilot case studies is to provide preliminary evidence to determine the effectiveness of the FCA approach for improving generalizability in adults with TBI.

3 Global Elements

Interpersonal Relationships

The ability to initiate communication with others, utilize appropriate behavior in a group, understand tasks and reading materials, follow commands, regulate emotions, correct errors, have insight of strengths and weaknesses.

Environmental

The ability to visually scan, orient self to place, arrange workspaces appropriately in order to complete the task, acknowledge safety hazards, safely navigate, and use a map and/or compensatory devices.

Time Parameters

The ability to initiate tasks and estimate the time needed to complete them, follow schedules, orient to the time of day, and manage multiple tasks at once.

Functional Cognitive Activities Functional Scale

Level	Time Performance	Environmental Performance	Interpersonal Performance
8	Creates time schedule for project	Navigates in unfamiliar community	Generates goals for self-improvement
8	Multi-tasks to maximize time	Plans entire outing before starting	Finds alternative solutions to problems
8	Uses daily/weekly planner effectively	Gathers all materials before starting	Uses compensation for deficits
8	Estimates time needed for project	Identifies shortcuts during outing	Modifies behavior to match situation
8	Completes project in time	Revises route if necessary	Spontaneously engages others
7	Schedules interweaving tasks	Navigates in familiar community	Enters appointments in planner
7	Prioritizes tasks by time	Uses map to find unfamiliar places	Includes key info when taking notes
7	Manages overlapping tasks	Aware of elapsed time during tasks	Anticipates consequences of actions
7	Revises time schedule as needed	Plans most efficient route at start	Evaluates own behavior
7	Adjusts work speed to time limits	Uses landmarks to navigate	Accepts criticism of performance
6	Creates a time schedule for session	Navigates multi-level building	Finds appropriate people to ask
6	Estimates time needed for each task	Oriented using map	Spontaneously initiates taking notes
6	Arranges tasks according to time limits	Keeps workspace organized	Highlights details of written instructions
6	Completes tasks at normal speed	Avoids back tracking between places	Recognizes/corrects errors
6		Uses signs to navigate	Follows complex instructions
5	Arranges tasks according to number	Navigates on same floor of building	Initiates asking for help when needed
5	Attends to time while navigating	Keeps track of personal belongings	Takes notes when told
5	Writes schedule when dictated	Keeps task materials separated	Clarifies instructions before starting
5	Crosses off tasks when finished	Aware of safety during complex ADL	Denies or argues about performance
5	Completes complex multi-step tasks	Uses floor plan/map to navigate	Uses phone/computer to get info
4	Follows time schedule accurately	Navigates to rooms in same area	Solves simple word problems
4	Consistently checks clock	Recalls items in adjacent rooms	Communicates ideas clearly
4	Aware of being off schedule	Recognizes/initiates when lost	Aware of errors, but don't correct
4	Sets own alarm if needed	Returns to start point in same room	States some deficit areas
4	Completes a series of unrelated tasks	Navigates by written/verbal directions	Initiates using phone to make call
3	Starts/stops tasks on time	Navigates to multiple places in room	Follows simple written directions
3	Identifies correct date on calendar	Carries checklist from task to task	Initiates communication
3	Understands printed time schedule	States current location when asked	Recalls names of unfamiliar persons
3	Uses alarm to switch tasks on time	Returns to start point in same room	Controls emotions
3	Completes series of related tasks	States next destination when asked	Appropriately addresses others
2	Initiates next task at correct time	Scans for items within room	Reads simple written phrases
2	Monitors clock during tasks	Returns to task if interrupted	Initiates greeting others
2	Stays on task until completed	Keeps checklist within reach	Recalls names of familiar persons
2	Checks time when alarm sounds	Scans area before starting out	Responds with appropriate emotion
2	Completes all steps in related task	Walks/propels safely	Looks at others when talking
1	Initiates next step on printed checklist	Scans for items within reach	Reads simple typed words or numbers
1	Uses message device for next step	Attempts to task in distracting room	Follows one-step verbal instructions
1	States time when asked	Finds alarm and turns it off	Responds to name when called
1	Moves to next step when alarm sounds	Looks for checklist of tasks	Able to calm self after outburst
1	Counts exercises or task repetitions	Transfers safely	Answers question when asked

CONCLUSION AND RECOMMENDATIONS

Conclusion

- The FCA approach can be an effective method for facilitating the generalization of functional cognition skills in daily occupations across contexts and environments for adults with TBI.
- The FCA approach can guide therapists to evaluate an individual's cognitive performance level and implement the proper amount of support needed in order to be able to adhere to a time schedule.

Recommendations

- Formal training of the implementation of the approach prior to beginning treatment sessions with participants.
- More thorough selection process including an interview with the potential participants regarding their acceptance of their condition.
- Involving caregivers in intervention goals and implementation to avoid caregiver barriers.

REFERENCES

Koch, R. (2014). *Functional cognitive activities for adults with brain injury or stroke: A sequential approach*. Cross Country Education, Cicerone, K., Levin, H., Malec, J., Stuss, D., & Whyte, J. (2006). Cognitive rehabilitation interventions for executive function: moving from bench to bedside in patients with traumatic brain injury. *Journal of Cognitive Neuroscience*, 18(7), 1212-1222. doi:10.1162/jocn.2006.18.7.1212, Toglia, J.P., Golsiz, K.M., & Goverover, Y. (2014). Cognition, perception, and occupational performance, In B.A.B Schell, G. Gillen, & M.E. Scaffa (Eds). Willard and Spackman's occupational therapy (12th ed., pp. 781-791). Philadelphia: Lippincott Williams & Wilkins.

PARTICIPANT 2

Age: 77 | **Gender:** M | **Education Level:** Graduate Degree | **Years Post-TBI:** 3

Beginning FCA Level

Level 4 FCA Focus:

“Following a Time Schedule”

- Previous task materials need to be removed to show that a change in activity has occurred
- Adhere to specific time schedule
- Complete multiple steps and in varying length of time for each activity

Ending FCA Level

Level 3 FCA Focus:

“Looking Around the Room”

- Navigate safely and efficiently in immediate environment
- Demonstrate safety awareness
- Visually scan environment for task materials

Level 4 FCA Participant Strategies:

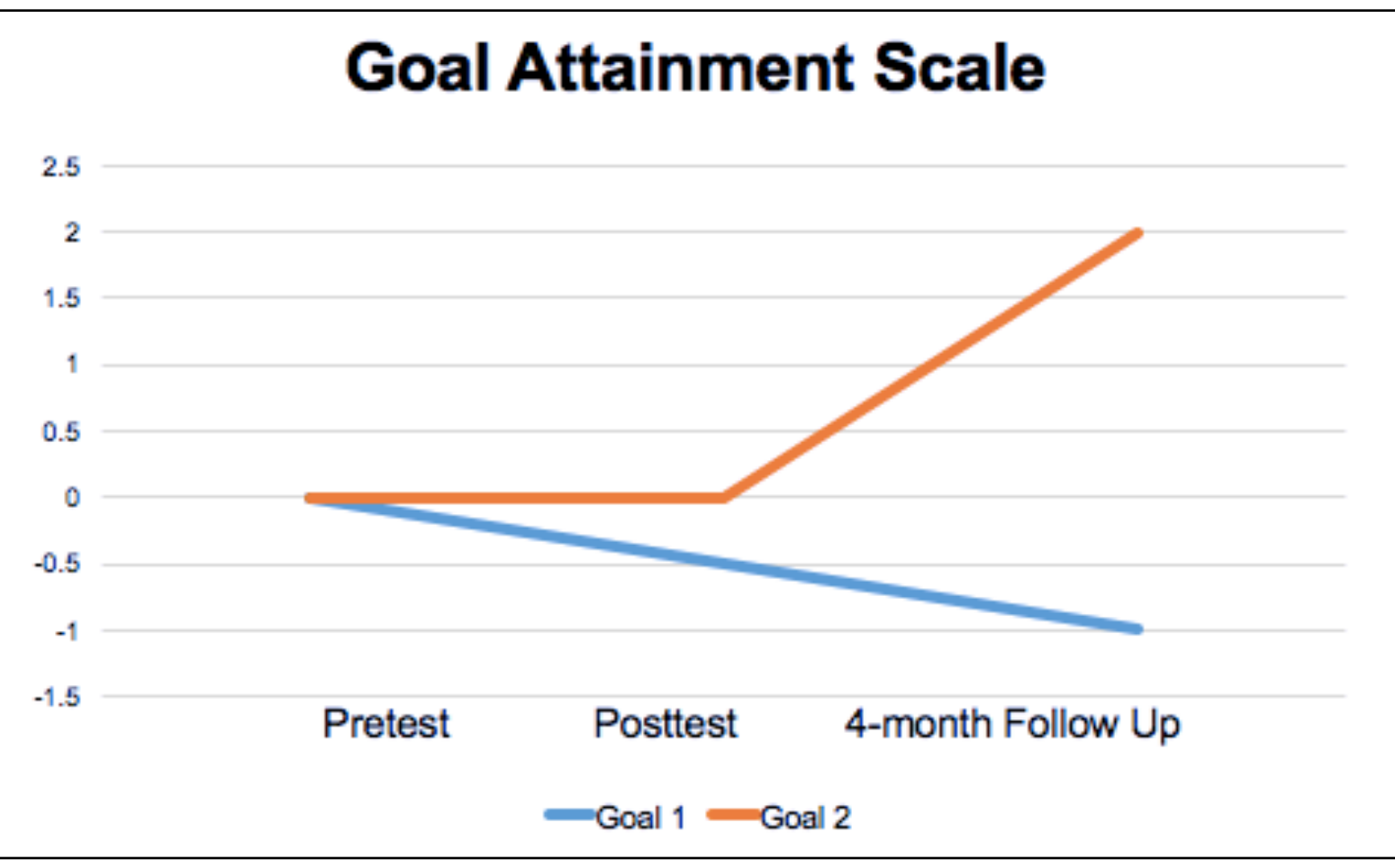
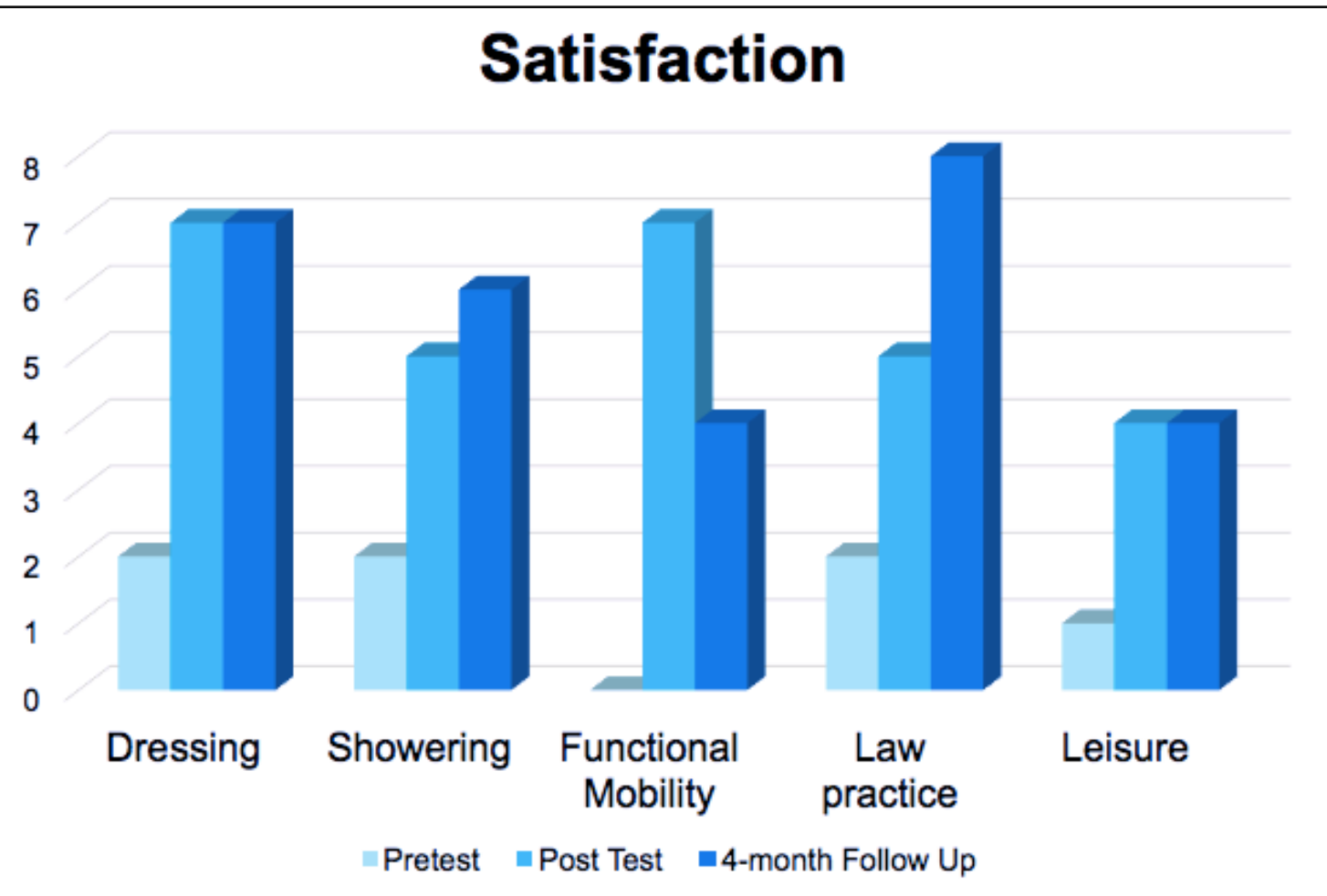
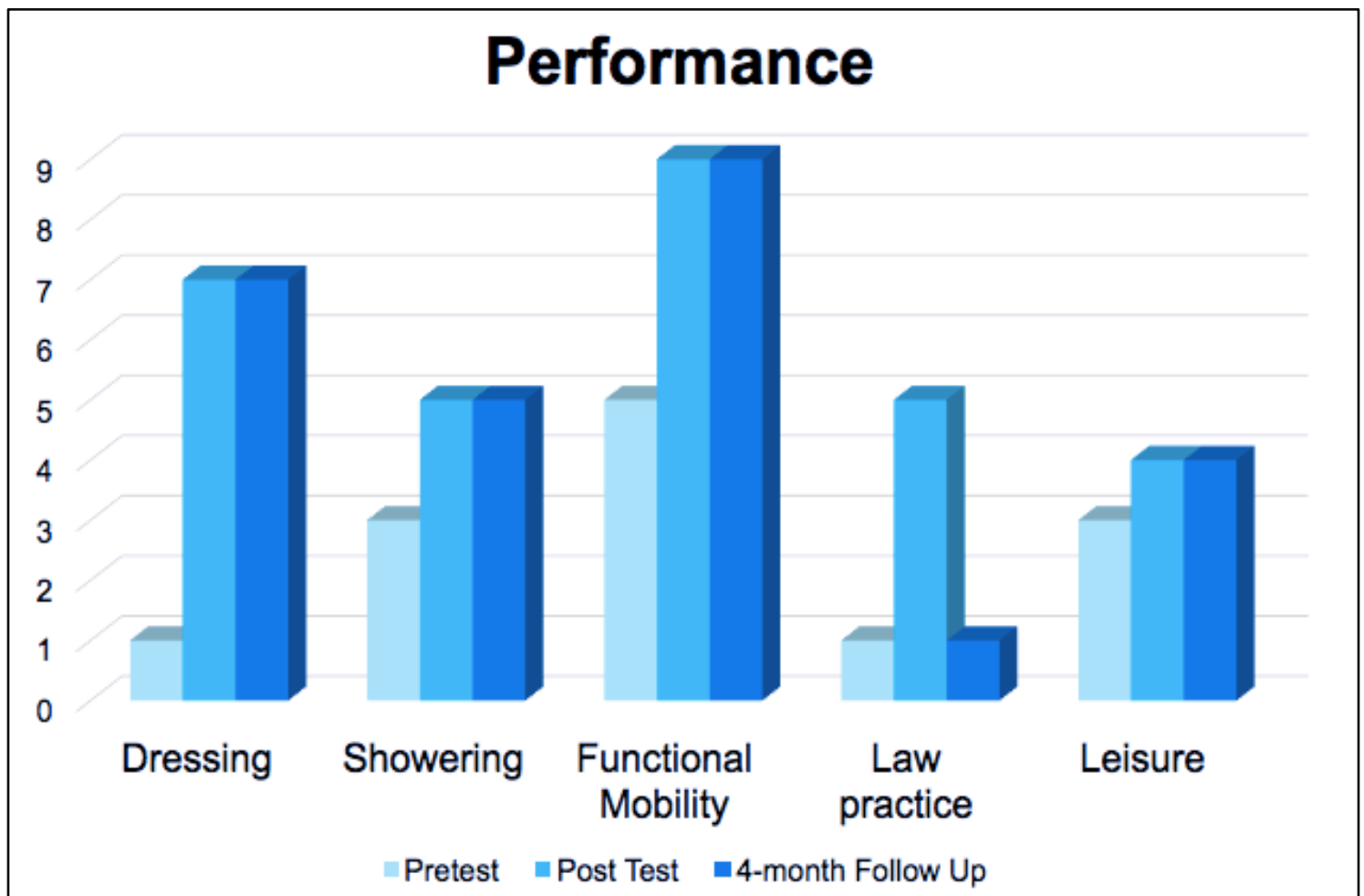
- Taking notes when given verbal/written instructions
- Keep schedule on hand at all times

Level 3 FCA Participant Strategies:

- Scan the environment and pace self during ambulation
- Utilize watch and alarm

RESULTS

Canadian Occupational Performance Measure



PARTICIPANT QUOTE

“I have been putting on my socks and shoes in the morning which I wasn’t ever doing before your program.”