



Stress Coping Styles, Problem Solving Skills, Mental Health, Therapeutic Relationship and Goal Attainment Success among Adults with Acquired Brain Injury

Research Project 2006 – 2007 Summary Report

Thirty five program participants at Brain Injury Services of Hamilton, Haldimand-Norfolk, Niagara were recruited to participate in a research study in which they and their staff were asked to complete measures of coping response styles, social problem solving skills, mental health, goal attainment and working alliance. This study revealed multiple relationships between working alliance and goal attainment in brain injury rehabilitation as well as factors such as client mental health, coping styles, and problem solving skills that effect successful rehabilitation. The research was designed to assess reliability and validity of new tests that can be used with ABI participants. The research was led by Dr. Bruce Linder, clinical director at Brain Injury Services in conjunction with McMaster University students.

Assessments Completed:

- Rivermead Memory Test (RBMT-II)
- Coping Response Inventory (CPI)
- Social Problem Solving Inventory – Revised (SPSI-R)
- Adult Behaviour Checklist/Adult Self-Report (ABS/ASR)
- Goal Attainment Scale (GAS)
- Working Alliance Scale (WAS)

Results:

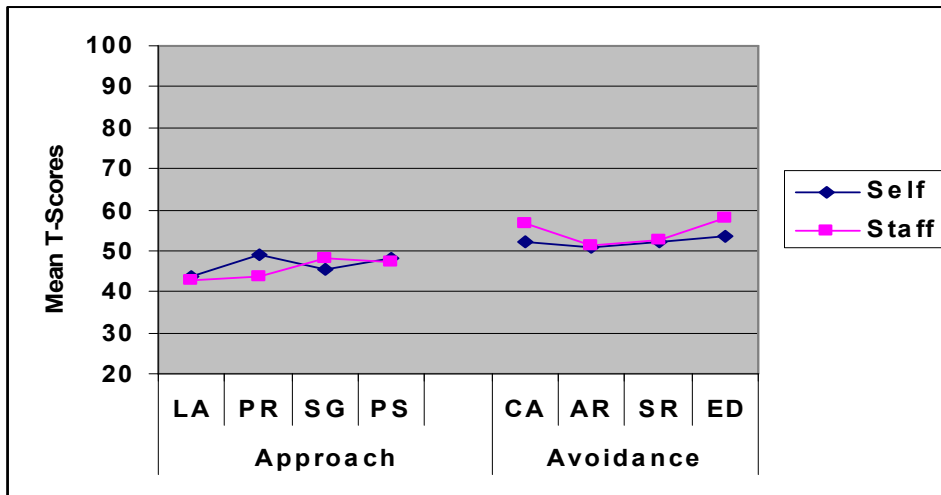
Coping Styles

When examining how the participants attempted to problem solve the stressors they encountered in everyday life, typically they engaged in more avoidant styles of coping than approach styles of coping. The scores indicated that the

participants tended to rely more heavily on strategies such as avoiding thinking realistically about their problem, accepting the problem, getting involved in substitute activities to create new sources of satisfaction and reducing tension by expressing negative feelings.

There were few differences between staff and participants as a group when reporting on coping styles exhibited by the participant, validating the participant reports. It is important to note that the results of the memory test indicated that functional memory skills did not significantly relate to the effectiveness of coping styles and social problem solving skills. Figure A illustrates the self and staff ratings for coping styles.

Figure A: Self and Staff Ratings for Coping Response Inventory (CRI)



Problem Solving Training

A sub-group of participants took part in guided problem solving training that lasted 6 sessions. Each week, the participants met with their CF to discuss any problems encountered throughout the week. The sessions involved a rating scale developed by Dr. Linder where the staff and participants were asked to score how well they used problem solving skills. Staff indicated there was no significant difference in the scores from session 1 to 6; meaning that the participants scores did not improve with short term problem solving training. However, significant decreases in avoidant style problem solving were observed. Firstly, trends of improvement were noted in the way participant's viewed their problems, suggesting they looked at their problems in a more positive way towards the end of the training. Secondly, trends of less impulsivity and carelessness styles when coping with their daily stressors were reported. Most significantly, the results of the problem solving questionnaires indicated several predictors of effective social problem solving training.

Predictors of effective social problem solving training:

- Participants who viewed problems in a negative way and/or as unsolvable had better outcomes.
- Participants that had low levels of approach and avoidant coping styles had better outcomes.
- The presence of mental health issues led to more effective training than for participants who reported no mental health concerns.
- The younger a participant was the better outcome of the training.

Mental Health

The results of the mental health assessment indicated elevations in all mental health areas meaning ABI individuals tended to be significantly more depressed, anxious, withdrawn and aggressive. Depression was found to be significantly correlated with how a participant views their problems, make decisions and generates alternative solutions. Those participants that reported high levels of depression had difficulty getting involved in new activities as sources of satisfaction. Depression also correlated with high levels of avoidance styles of coping when dealing with daily stressors.

Therapeutic Relationships and Rehabilitation Success

When examining the therapeutic relationship between participant and staff, both participants and staff reported similar scores overall, suggesting agreement of a strong working alliance. The results indicated that both staff and participants reported high levels of trust, appreciation and mutually agreed upon goals.

There was a significant correlation when comparing the results of the working alliance with rehabilitation and goal attainment. The GAS, designed by BISH was used to determine the level at which the participants and staff perceived goal and objective attainment. Overall, positive working alliances related to better long-term goal attainment and higher satisfaction with rehabilitation as rated by participants and case facilitators, suggesting working alliance as a critical factor in ABI rehabilitation. Figure B illustrates the correlations between goal attainment and working alliance. Several predictors for goal attainment success were found and are indicated below. Correlations beyond 0.3 are statistically significant.

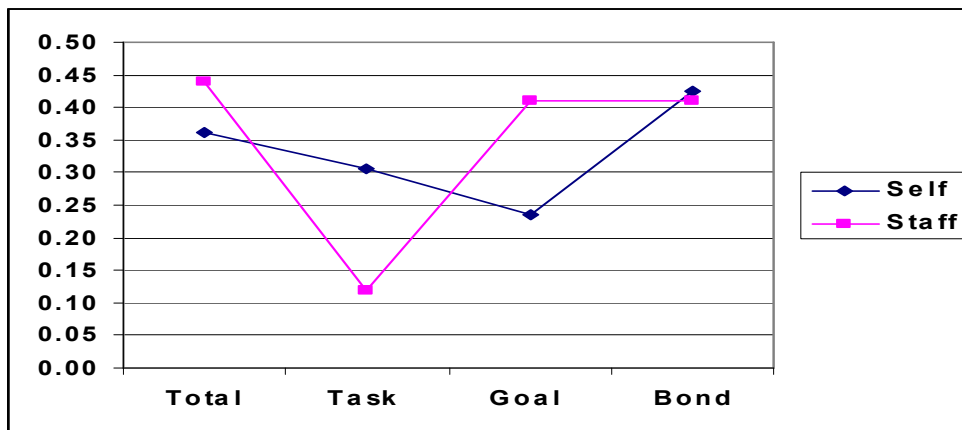
Participant-report measures that predicted goal attainment:

- Aging (- 0.33)
- Symptoms of depression or tendency to be withdrawn (- 0.47)
- The ability to accept problems and move forward (+ 0.45)
- Viewing problems in a positive way (+0.33)
- A positive client-CF working relationship (+0.43)

Staff-report measures that predicted goal attainment

- Low levels of anxiety and depression (- 0.42)
- Viewing problems in a positive way (+ 0.38)
- Accepting the reality of a situation when problem solving (+ 0.41)
- Impulsivity and or carelessness when problem solving (- 0.49)
- Implementing solutions (+0.42)
- A positive client-CF relationship and mutual agreement on goals (+ 0.44)

Figure B: Goal Attainment and Working Alliance Correlations.



Summary

The results of the study suggested several important findings regarding problem solving and coping skills for ABI participants. Several predictors for successful problem solving and goal attainment were identified during the study. Mental health, age and the way in which participants view and cope with daily stressors are important considerations in goal attainment success. Most significantly, overall positive working alliance was related to better long-term goal attainment and higher satisfaction with rehabilitation as rated by both the participant and CF.

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