

Resilience, Recovery, and Proven Strategies to Rebuild Shattered Lives

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What is Resilience?

Definition: "... the ability to withstand and rebound from disruptive life challenges... involves dynamic processes fostering adaptation within the context of significant adversity."

Goals in Learning to be Resilient

- Remain calm under pressure
- Improve creative, analytical, and practical problem solving skills
- Maintain optimism, humor, and positive feelings in the face of challenges
- Avoid thinking of one's self (and others) as a victim
- Be self-reliant and socially responsible
- Understand that learning leads to a better life
- Derive good fortune from misfortune

From Siebert, A., *The Resiliency Advantage*, © 2005

Common TBI Challenges and Skills Necessary for Resilience

Common TBI Deficits and Challenges	Skills Necessary for Resilience
Anxiety, depression	Even temperament, emotional stability
Survivor focus on deficits, frequent comparisons to pre-injury functioning	Positive outlook, optimism
Irritability, aggressive behaviors	Self-regulatory skills and even-tempered behaviors
Discomfort with socialization	Social perception, arousal of liking response in others
Impaired self awareness	Insightful modification of behavior
Cognitive deficits, impaired executive functioning	Good problem solving skills
Diminished communication skills	Effective communication

Efficacy of the resilience and adjustment intervention after traumatic brain injury: a randomized controlled trial

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ABSTRACT

Objective: Examine a psychoeducational and skill-building intervention's effectiveness for individuals after traumatic brain injury (TBI), using a two-arm, parallel, randomized, controlled trial with wait-listed control.

Methods: The Resilience and Adjustment Intervention (RAI) targets adjustment challenges and emphasizes education, skill-building and psychological support. Overall, 160 outpatients were randomly assigned to a treatment or wait-list control (WLC) group. The manualized treatment was delivered in seven 1-h sessions. The Connor-Davidson Resilience Scale (CD-RISC) was the primary outcome measure. Secondary measures included the Mayo Portland Adaptability Inventory-4 (MPAI-4), Brief Symptom Inventory-18 (BSI-18) and 13-Item Stress Test.

Results: After adjusting for injury severity, education and time postinjury, the RAI group ($N = 75$) demonstrated a significantly greater increase in resilience (effect size = 1.03) compared to the WLC group ($N = 73$). Participants in the RAI group demonstrated more favourable scores on the MPAI-4 Adjustment and Ability Indices, BSI-18 and the 13-item Stress Test. However, only the CD-RISC and BSI-18 demonstrated a clinically significant difference. In addition, RAI participants demonstrated maintenance of gains from pre-treatment to 3-month follow-up; however, only the BSI-18 maintained a clinically significant difference.

Conclusions: Investigation provided evidence that a resilience-focused intervention can improve psychological health and adjustment after TBI. Additional research is needed to ascertain the longer term benefits of intervention and the efficacy of alternative delivery methods (e.g., via telephone, internet).

ARTICLE HISTORY

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KEYWORDS

Intervention; resilience;
psychological adjustment;
psychological distress

Primary Objective

To examine the short-term efficacy of the Resilience and Adjustment Intervention (RAI), a brief intervention program designed to improve resilience, emotional well-being, and adjustment

RAI

Study Methods

- 160 outpatients at least three months postinjury randomly assigned to a treatment or wait list control group.
- The manualized treatment was delivered in seven one hour sessions.
- The Connor-Davidson Resilience Scale was the primary outcome measure.
- Secondary measures included the Mayo-Portland Adaptability Inventory-4, BSI-18, and the 13-Item Stress Test.

Goals of the RAI Program

1. To provide survivors with fundamental information about common symptoms and challenges after TBI
2. To help survivors develop core abilities, enabling them to more effectively problem solve and efficiently achieve personal goals
3. To teach coping strategies that facilitate the process of emotional recovery, helping survivors to feel better about themselves, their lives, and their relationships

Goals of the RAI Program

4. To teach survivors effective communication skills, enabling them to develop effective long-term support systems
5. To instill hope and a positive outlook by identifying progress and personal strengths, and helping survivors access community resources



RAI Implementation

- ✓ Five week, seven session format with two or three topics covered during each sixty minute session
- ✓ Total of 16 topics covered via self-assessment, discussion, and structured learning experiences
- ✓ Sessions implemented hierarchically; earlier topics provide foundation for later topics

RAI Implementation

- ✓ Time span between sessions allows for homework completion, reflection, trying out strategies and solutions to problems
- ✓ Sessions conducted by single qualified therapist with single survivor



Curriculum Based Approach

- Education regarding common challenges, issues, and concerns
- Psychological support
- Skill building abilities associated with improvement in the targeted domain
- Components adapted from validated Brain Injury Family Intervention



Resilience and Adjustment Intervention Session I

Understanding the Effects of Brain Injury

1. Understand the typical consequences of brain injury
2. Appreciate the difference between emotional and physical recovery
3. Cope effectively with loss and change



Common Physical and Emotional Problems after Brain Injury

Directions: Below is a list of problems that often occur after brain injury. Review the list and place a check in the box next to any problems you might now have.

<input type="checkbox"/> move slowly	<input type="checkbox"/> feel hopeless
<input type="checkbox"/> headache	<input type="checkbox"/> difficulty enjoying activities
<input type="checkbox"/> balance problems	<input type="checkbox"/> frustrated
<input type="checkbox"/> tired	<input type="checkbox"/> uncomfortable around others
<input type="checkbox"/> dizzy	<input type="checkbox"/> scared, frightened
<input type="checkbox"/> fuzzy or blurred vision	<input type="checkbox"/> nightmares, bad dreams
<input type="checkbox"/> sensitive to noise	<input type="checkbox"/> feel worthless
<input type="checkbox"/> trouble with coordination	<input type="checkbox"/> can't get mind off certain thoughts
<input type="checkbox"/> no energy	<input type="checkbox"/> worried
<input type="checkbox"/> weak	<input type="checkbox"/> lonely
<input type="checkbox"/> ringing in the ears	<input type="checkbox"/> no confidence
<input type="checkbox"/> trouble sleeping	<input type="checkbox"/> sad, blue
<input type="checkbox"/> trip over things	<input type="checkbox"/> irritable



Twelve Things to Know about Recovery after Brain Injury Fact Sheet

Below is a list of things that may be helpful for you to know about recovery after brain injury. Some of the ideas are well accepted while others may be subject to debate.



1. The most rapid recovery takes place within three months of injury.
2. Taking on too much too soon can slow or reverse recovery.
3. Many people who have a serious brain injury are not able to work for at least a year or two.
4. Good sleep and resting during the day can help your recovery.
5. Recovery can continue for five or ten years or longer.
6. Drinking alcohol can slow recovery.
7. Talk to your doctor about driving, school, and work. Follow their advice about what you should and shouldn't do.
8. No two brain injuries are exactly the same. People can recover and different rates and have different strengths and limitations.
9. Most people get better with practice and training. Mental and physical exercise can help you continue making gains.
10. Everyone with a brain injury, no matter how severe, has the ability to learn. Learning allows you to do things better and more efficiently.
11. Learn from others. See what works for other people and what doesn't.
12. Ask for feedback and suggestions from people who care about you.

Resilience and Adjustment Intervention Session II

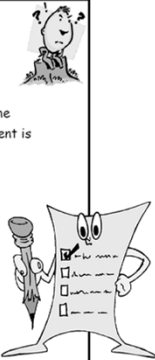
Active Engagement in Recovery

4. Realize the important role you have in your own recovery
5. Recognize what you can do to help yourself and feel better

"Am I Ready To Work on Getting Better?" Test

Directions: For each of the following statements, circle **T** if the statement is true or mostly true about you, or **F** if the statement is false or mostly false about you.

1. T F I know my strengths and limitations.
2. T F I have clear goals and focus on making things better.
3. T F I keep trying even when things seem difficult.
4. T F I try to learn from my mistakes and press on.
5. T F I am willing to ask for help.
6. T F I am willing to admit when I make a mistake.
7. T F When people ask if I need help, I respond politely.
8. T F When people talk, I'm sure to listen.
9. T F When I'm not sure how to do something, I ask.
10. T F I look for the positive in other people and situations.
11. T F I'm polite and respectful to others.
12. T F I can learn a lot from other people.
13. T F I'm thankful when people offer me constructive feedback.
14. T F I communicate my feelings, needs, concerns, and ideas
15. T F I do my best to be patient with myself, my goals, and other people.
16. T F I pay attention to how I'm feeling.
17. T F I work hard to control my discouragement and anger.
18. T F I think about other people's feelings.
19. T F I can clearly see the benefits of trying hard.
20. T F I try to do things that are good for me.
21. T F I choose to spend time with people who can help me reach my goals.
22. T F I am an important and responsible member of my treatment team.
23. T F I understand that success means doing more rather than less.



Resilience and Adjustment Intervention Session III

Setting Reasonable Goals

6. Appreciate that success is relative
7. Improve your ability to be patient
8. Understand and implement effective goal setting strategies

Resilience and Adjustment Intervention Session IV

Solve Problems Effectively

9. Learn and use more effective problem solving strategies



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TIPS TO HELP YOU BETTER SOLVE PROBLEMS



Survivors face many complex problems. These problems may be related to the injury or simply to obstacles that come up in every day life. You may feel overwhelmed by your problems. Here are some questions to ask yourself and some tips to try before you give up.

How are you feeling as you approach your problem?

- **Try to solve problems when calm.** Emotions often get in the way of effective problem solving. Wait until your feelings settle down.
- **Try not to get frustrated when new problems emerge.** Realize that new problems often come up after old ones are solved.

If you are feeling stressed or overwhelmed, what should you do?

- **Set priorities and try to solve one problem at a time.** Setting priorities is a good strategy especially when you feel overwhelmed. Make a list of the main problems you face. Rank and work on them in terms of importance, starting with #1. Begin working on the next one only after you've solved the first.
- **Be patient and fight the temptation to give up too soon.** Most people want their problems solved right away. Remember that solving problems typically takes time. Patience and persistence are the basic ingredients of successful problem solving.

Resilience and Adjustment Intervention Session V

Managing Stress, Anger, and Other Intense Emotions

10. Monitor and manage stress more effectively
11. Better manage intense emotions including frustration, anger, and fear



THE SIGNALS OF STRESS SCALE


Directions: Put a check in the box next to each item that describes you.

- I am really irritable.
- I have too many things to do.
- I really have trouble sleeping.
- I'm trying really hard but getting nothing done.
- I really worry about getting sick.
- I can't afford to take breaks or time off.
- I am pushing myself too hard.
- Everything I do seems difficult.
- I have no idea what to do.
- I am not treating people the way I want to be treated.
- I feel tired all the time.
- Everyone complains about what I do.




Scoring: The more items you checked, the more stress you may be under.


TIPS TO HELP YOU BETTER CONTROL ANGER



Directions: Think about and try the ideas in the list below.
Find the ones that work best for you.



- Recognize that you are in charge of yourself** and have the power to control your anger.
- Realize that controlling anger is a skill**, with practice you will get better.
- Realize that treating people kindly will help you more often achieve your goals** than scaring people with anger.
- Know that hurting others won't make your life better**, make people like you, or help you get what you want.
- Take your "emotional temperature" often.** Noticing signs of anger early will help you stay in control.
- Take control of yourself.** Tell yourself to relax; breathe deeply and slowly.



Resilience and Adjustment Intervention Session VI

Communicating Effectively and Rebuilding Relationships

12. Rebuild relationships and overcome loneliness
13. Learn and apply more effective communication strategies
14. Develop strategies for comfortably discussing injury with others



Communication Checklist

Directions: Place a check in the box next to each item that is true or mostly true about you.

- I don't know how I'm feeling.
- Nobody understands me.
- I don't like to be around other people.
- I'm worried about what others think of me.
- Nobody cares about me.
- I have a hard time describing my feelings.
- I don't want to burden people with my feelings.
- I don't like to talk about my feelings.
- I don't know who to talk to about my problems.
- I can't hide my feelings like I used to.
- I avoid showing my true feelings.
- I don't want to upset people by talking about my feelings.
- I'm afraid to let my guard down.
- I don't feel anything anymore.
- Most people don't care what I have to say.



Resilience and Adjustment Intervention Session VII

Communicating Effectively and Rebuilding Relationships

15. Avoid a negative focus, feeling guilty, or blaming others
16. Appreciate positive aspects of your new life and develop a positive attitude

Guilty – or – Not Guilty?

Directions: People often feel guilty about things they did before and after they were injured. Read the list of statements below and check off the ones that describe how you feel now.

- I should be doing more to get better.
- What happened is my fault.
- I wish I would have done something to prevent the accident.
- I can't let this happen again.
- I have made many mistakes.
- Everyone blames me for the accident.
- I get blamed for everything that goes wrong.



CD-RISC Framework

Assessment via a resilience model based on hardiness and persistence, specifically:

- Not giving up
- Coping well with unexpected events
- Tolerating stress
- Overcoming illness & hardship
- Tolerating pressure
- Overcoming negative outcomes
- Coping with unpleasant feelings

www.connordavidson-resiliencescale.com

Brief Symptom Inventory-18 (BSI-18)

- Self-report measure designed to quantify psychological distress in general population
- 18-item scale with higher scores reflecting greater problem frequency
- 3 subscales and General Severity Index (GSI)
 - Somatization
 - Depression
 - Anxiety

Mayo Portland Adaptability Inventory-4

- Assesses characteristics of adaptability and functioning via self-report
- 30-item Likert-type scale with items rated 1 – 4, higher scores = greater problem severity
- 3 subscales
 - Adjustment Index – emotional, behavioral self-regulation
 - Ability Index – cognitive and physical
 - Participation Index – community integration

The 13 Item Stress Test



- I have a lot to do.
- I have more to do than I can handle.
- I'm not being productive.
- I'm trying really hard but getting nothing done.
- I'm feeling unhealthy.
- I can't afford to take breaks for time off.
- I'm pushing myself too hard.

The 13 Item Stress Test



- I don't sleep very well.
- Too many people are telling me what to do.
- I am not treating people well.
- I feel totally exhausted.
- Nobody is happy with what I do.
- I can't stand living like this.

Table 3. Baseline, post-treatment and follow-up means and standard deviations for outcome measures.

Outcome	Group	Baseline	Post-treatment	Follow-up
CD-RISC*	RAI	21.1 (8.1)	28.4 (6.9)	25.5 (7.8)
	WLC	23.4 (9.0)	23.7 (8.1)	–
MPAI-4: Adjustment Index†	RAI	55.4 (9.1)	51.2 (9.5)	50.7 (10.0)
	WLC	55.8 (10.5)	54.5 (9.2)	–
MPAI-4: Ability Index†	RAI	55.0 (9.7)	51.0 (8.3)	50.7 (9.5)
	WLC	53.5 (10.8)	54.2 (9.5)	–
BSI-18†	RAI	63.8 (11.7)	57.2 (10.6)	58.7 (10.4)
	WLC	64.1 (10.7)	64.0 (9.4)	–
13-Item Stress*	RAI	6.7 (3.3)	4.5 (3.4)	5.0 (3.1)
	WLC	6.5 (3.5)	6.0 (3.3)	–

* Raw score.

† T-score.

RAI: Resilience and Adjustment Intervention; WLC: Waitlist Control; CD-RISC: Connor-Davidson Resilience Scale; MPAI-4: Mayo-Portland Adaptability Inventory-4; BSI-18: Brief Symptom Inventory-18.

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Table 4. Post-treatment outcome measurement differences between RAI and WLC groups.

Outcome	RAI–WLC at post-treatment		
	Difference (95% CI)	ES (d)	<i>p</i>
CD-RISC	6.70 (4.96, 8.43)	1.03	<0.001
MPAI-4: Adjustment Index	–2.48 (–4.55, –0.41)	–0.32	0.019
MPAI-4: Ability Index	–3.75 (–5.85, –1.65)	–0.48	<0.001
BSI-18	–6.51 (–8.73, –4.30)	–0.78	<0.001
13-Item Stress Test	–1.50 (–2.23, –0.77)	–0.55	<0.001

RAI: Resilience and Adjustment Intervention; WLC: Waitlist Control; ES: Effect size; CD-RISC: Connor-Davidson Resilience Scale; MPAI-4: Mayo-Portland Adaptability Inventory-4; BSI-18: Brief Symptom Inventory-18.

With the exception of the CD-RISC, higher scores denote worse functioning.

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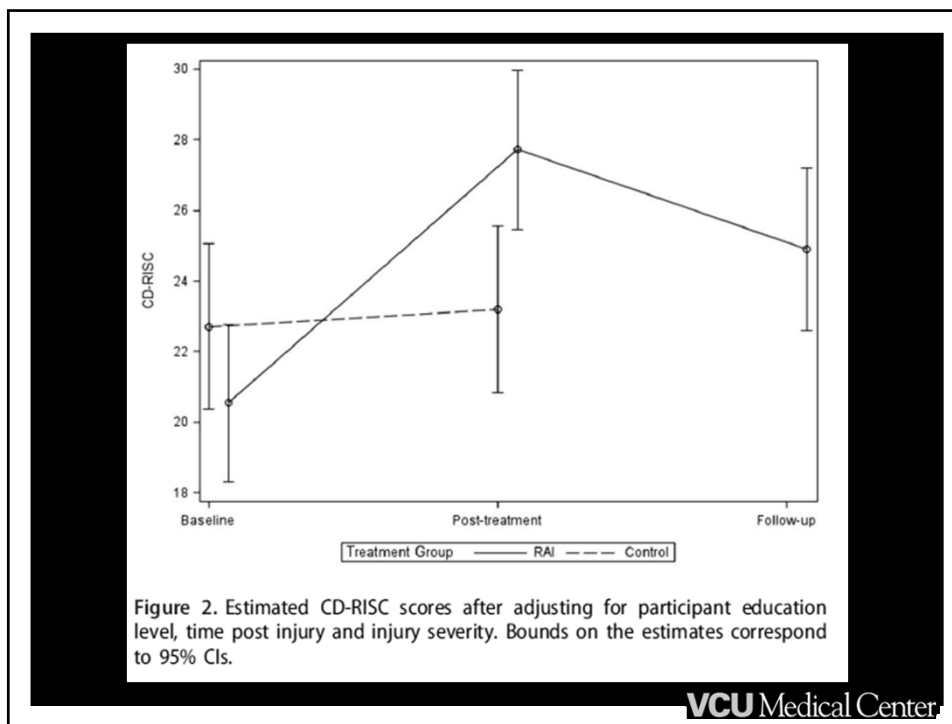


Table 5. Baseline to follow-up outcome measurement differences for the RAI group.

Outcome	Follow-up–Baseline for RAI		
	Difference (95% CI)	ES (d)	<i>p</i>
CD-RISC	4.36 (2.42, 6.30)	0.60	<0.001
MPAI-4: Adjustment Index	-4.61 (-6.95, -2.27)	-0.53	<0.001
MPAI-4: Ability Index	-4.05 (-6.41, -1.69)	-0.46	<0.001
BSI-18	-5.01 (-7.52, -2.50)	-0.53	<0.001
Stress	-1.60 (-2.40, -0.81)	-0.54	<0.001

RAI: Resilience and Adjustment Intervention; WLC: Waitlist Control; ES: Effect size; CD-RISC: Connor-Davidson Resilience Scale; MPAI-4: Mayo-Portland Adaptability Inventory-4; BSI-18: Brief Symptom Inventory-18.
 With the exception of the CD-RISC, higher scores denote worse functioning.

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Conclusions

- A curriculum-based education, skill-building and support intervention can improve resilience and reduce psychological distress in persons with TBI.
- Additional research is needed to ascertain the longer term benefits of intervention and the efficacy of alternative delivery methods (e.g., phone, internet).

PRACTICAL

Our work should be guided by the experiences of the people we serve, our perception of their needs, and our sense of the most important things we can do to meaningfully improve their lives.

JSK

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