



Social Comparison and Psychosocial Functioning in Severe Traumatic Brain Injury: A Pilot Study

Kyle Haggerty, Ph.D.
Bancroft Brain Injury Services, Cherry Hill, NJ, USA

Danielle Arigo, Ph.D.
Department of Psychology, Drexel University, Philadelphia, PA, USA



Background

- Traumatic brain injury (TBI) affects 1.7 million Americans each year. Of these, 25% are severe, involving deficits in multiple domains.¹ Patient-centered outcomes for TBI often focus on **psychosocial functioning**, such as cognitive coping with trauma, post-traumatic growth (PTG), and psychological acceptance.
- An individual with TBI who engages in treatment is likely to interact with or learn about others with the same condition. Such exposure to another individual with TBI offers an opportunity for **social comparison**, or self-evaluations relative to others.² Comparisons may have either positive or negative consequences.³
 - **Upward comparisons** – toward others perceived as “better off”
 - **Downward comparisons** – toward others perceived as “worse off”
- Significant relationships between social comparison and health outcomes has been observed in several medical populations, including diabetes, cancer, neuromuscular diseases, HIV, and patients recovering from cardiac surgery.⁴
- Only one previous study has examined social comparisons among individuals with TBI (mild).⁵ Comparisons have not been investigated in moderate to severe TBI, and may be relevant to TBI recovery.

Study Aim: To examine the relationships among social comparisons, post-traumatic growth, cognitive appraisals, and acceptance of negative circumstances.

Method

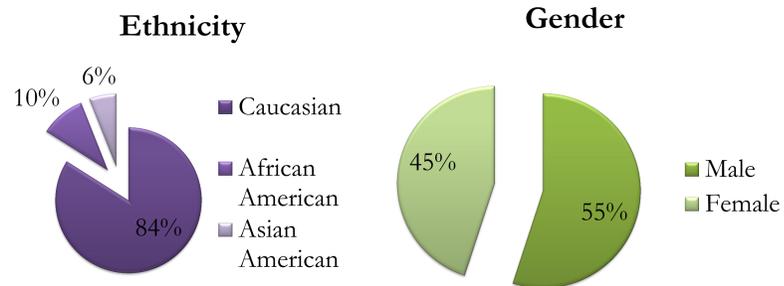
Cross-sectional data was collected at Bancroft Brain Injury Services, a post-acute, community based, day-treatment brain rehabilitation program. Data included:

1. Descriptive variables (e.g., injury type, time since injury)
2. Post-Traumatic Growth Inventory (PTGI)⁶ – appreciation of life and total scores
3. Cognitive Processing of Trauma Scale (CPOTS)⁷ – denial and regrets subscales
4. Philadelphia Mindfulness Scale (PHLMS)⁸ – acceptance subscale score
5. Iowa-Netherlands Comparison Orientation Measure (IN-COM)⁹ – total, upward, and downward subscales
6. Positive and negative responses to comparisons⁵ – self-ratings of positive (e.g., gratitude, inspiration) versus negative (anxiety, depression) reactions to comparison opportunities

Participants

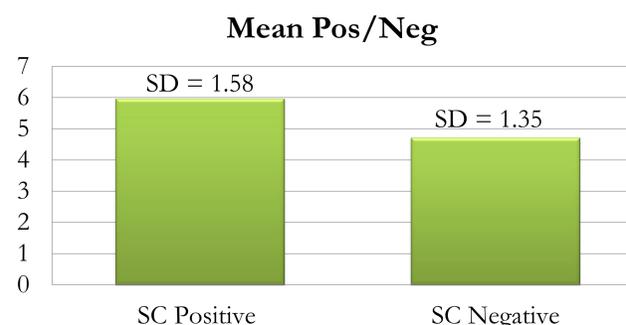
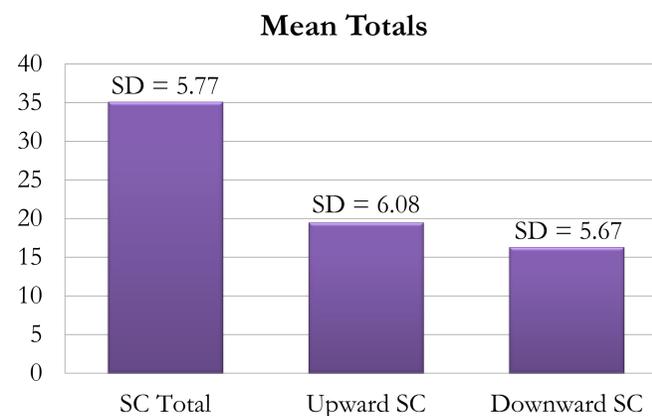
Individuals with moderate or severe TBI (N = 31) who were engaged in Bancroft rehabilitation services for at least six months, and were oriented to time, place and year. Persons who were actively psychotic or currently involved in a lawsuit were excluded. Those with visual impairments completed the surveys with assistance (measures were read to the individuals).

Demographics



	Mean	SD	Minimum	Maximum
Age	44.3	10.4	23.7	63.9
Years Since Injury	20.5	9.7	5.2	35.7
Years Since Admitted	7.1	5.6	0.6	21.1

Results



Results

	PTGI Appreciation of Life	PTGI Total	CPOTS Denial	CPOTS Regrets	PHLMS Acceptance
SC Total	r = .15 p = .41	r = .16 p = .36	r = .40 p = .02**	r = .35 p = .05**	r = .49 p = .004*
Upward SC	r = .003 p = .98	r = .08 p = .64	r = .42 p = .01**	r = .53 p = .001**	r = .24 p = .18
Positive SC	r = .45 p = .01**	r = .33 p = .06*	r = .28 p = .12	r = .11 p = .53	r = -.90 p = .28
Positive: Negative	r = .35 p = .05**	r = .27 p = .13	r = .35 p = .05*	r = -.004 p = .98	r = .03 p = .84

- Scores for general tendency toward social comparison were comparable to previous estimates in both healthy adults and patients with mild TBI.
- Tendency toward social comparison was strongly related to acceptance ($R = -0.50, p < 0.01$), such that more (vs. less) interest in social comparison was associated with lower acceptance.
- Stronger positive responses to social comparison vignettes (i.e., interpreting comparisons as opportunities to improve or feel satisfied with one's status) were related to greater denial and regrets ($p < 0.03$), but also were related to greater overall PTG and appreciation for life ($p < .05$).

Conclusions

- These preliminary findings show that social comparisons are common among patients with severe TBI, and are associated with both positive and negative psychosocial experiences.
- This pattern suggests that certain comparisons (or specific responses to comparisons) may be beneficial for psychosocial functioning, and that further investigation could identify comparisons that could be useful for severe TBI rehabilitation.

Contact

kyle.haggerty@bancroft.org
dra23@drexel.edu