

Aye Carumba! One of the Simpsons Has a Brain Injury!

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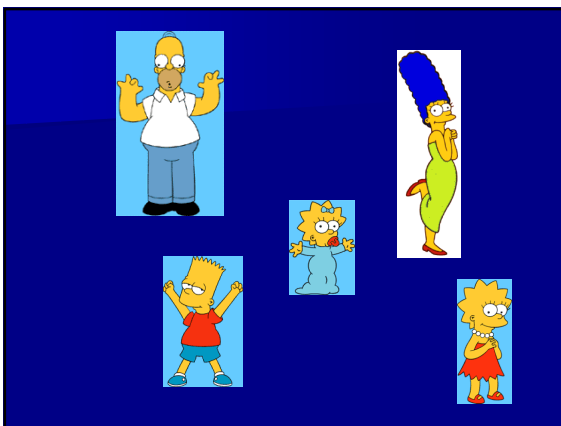
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Objectives

- Review literature on family system outcomes after ABI
- Discuss limitations in the research
- Present findings from current study
- Discuss implications for practice



Current Research

- Survivor outcome is linked to family outcome (Sander et al., 2002; Taylor et al., 1995)
- Family needs change over time and exist well beyond acute care (Kolakowsky-Hayner et al., 2001)
- Long-term negative effects on family functioning (Anderson et al., 2002; Gan & Schuller, 2002)

Impact of ABI on Caregivers

- Family strain, psychological distress in 47% of relatives (Kreutzer et al., 1994)
- Negative life change in 67% of spousal or parent caregivers (Wallace et al, 1998)
- Symptoms of depression (73%) & anxiety (55%) in spouses (Linn et al., 1994)
- 47% of caregivers had altered or given up jobs @ 1 year post injury (Hall et al., 1994)

Family Burden

- Family burden remained significant @ 7 years post-injury
- Physical changes cause the least burden
- Emotional, behavioral, and personality changes in survivor cause the most burden, NOT injury severity

(Brooks et al., 1987)

Impact on Siblings

- 83% of siblings had significant distress compared to controls (Orsillo et al., 1993)
- Increase in sibling conflict (Bergland et al., 1991; Rivara et al., 1992)
- High levels of family distress & increased responsibilities (Willer et al., 1990)
- Lives are "forever different" (Gill, 1999)

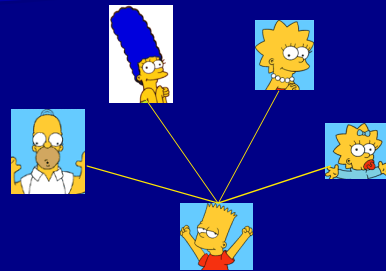
Children of Parents With ABI

- Negative behavioural change (Pessar et al., 1993)
- Parents perceived as more lax in discipline (Uysal et al., 1998)
- Non-injured parent less actively involved
- Increased depression in children

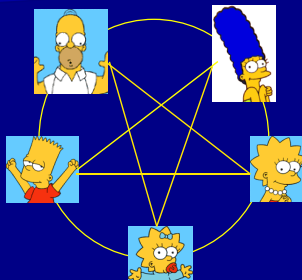
Research Limitations

- Focused primarily on caregivers
- Exclusion of child/adolescent reports, especially children of survivors
- Problems of conceptualization
- Use of assessment tools with uncertain reliability & validity
- Research on the family as a "system" is just beginning

Non Systems-Oriented Family Research



Family Systems-Oriented Research



Goals of the Study

- Examine family system functioning after ABI
- Identify areas of family functioning that are most compromised
- Identify factors associated with the outcome of family system functioning after ABI

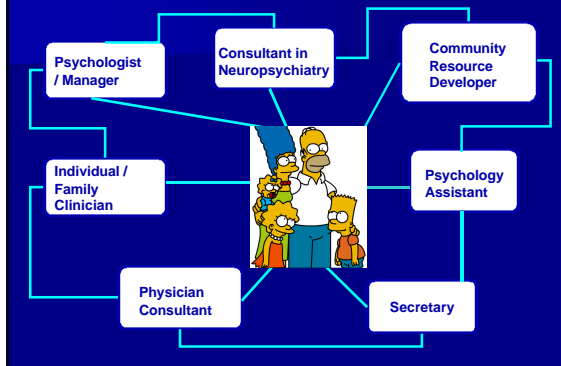
Method

- Retrospective design
- Chart review
- Clients from Family Support Service
- Intake questionnaires

Family Support Service

- Ministry of Health
- Neurorehabilitation Program
- Community-based
- 16 – 25 years
- Psychosocial support
 - Individual counselling
 - Family psycho-education and counselling
 - Community resource counselling
 - Support groups

Family Support Service



Family System Functioning

- Family Assessment Measure (FAM-III): Skinner, Steinhauer, & Santa-Barbara, 1983
 - Task Accomplishment (TA)
 - Role Performance (RP)
 - Communication (COM)
 - Affective Expression (AE)
 - Involvement (INV)
 - Control (CON)
 - Values & Norms (V&N)

Defining Family System Functioning

- Individual ratings of family functioning
 - Mean T scores across seven clinical subscales
- Family system ratings of family functioning
 - Mean of all family members' individual ratings (including survivor)

Variables

- Physical, emotional & cognitive impairments – Problem Checklist (PCL: Kay, Cavallo, & Ezrachi, 1995)
- Caregiver strain – Problem Checklist (PCL – SO: Kay, Cavallo, & Ezrachi, 1995)
- Awareness of deficits – Patient Competency Rating Scale (PCRS: Prigatano & Fordyce, 1986)

Variables (cont'd)

- Neuropsychological variables
 - verbal reasoning & concept formation - WAIS - Similarities
 - visuospatial & visuoconstructional ability - WAIS - Block Design
 - verbal learning - California Verbal Learning Test (CVLT)
 - nonverbal reasoning ability - Category Test (CAT)

Client Sample (n = 66)

- 74% (49) male, 26% (17) female
- Age at injury - 26 years (0.04 - 54.98 years)
- Time since injury - 5.65 years (0.18 - 29.48 years)
- Severity of injury
 - Mild 12%
 - Moderate 15%
 - Severe 73%

Family Role of Injured Person

■ Mother	4
■ Father	17
■ Spouse (no children)	1
■ Daughter	12
■ Son	29
■ Sibling	3

Cause of Injury

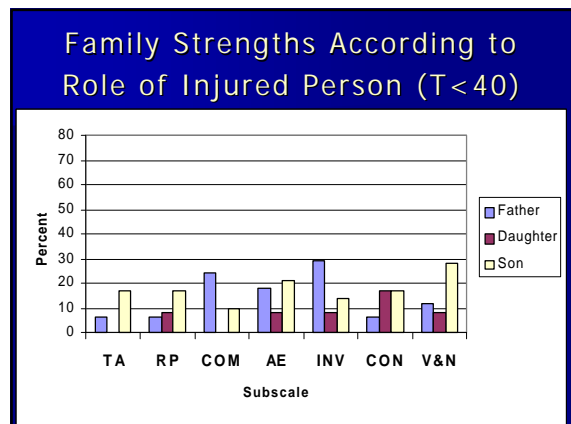
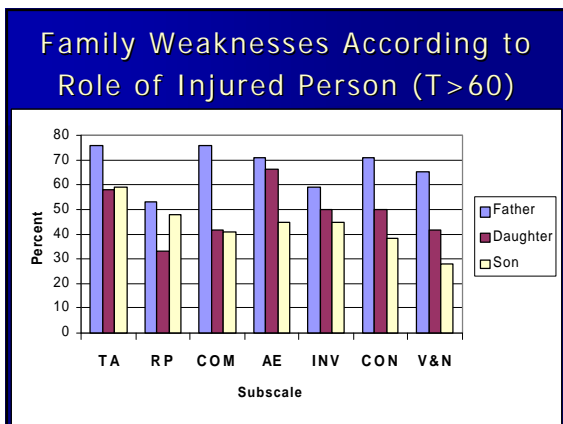
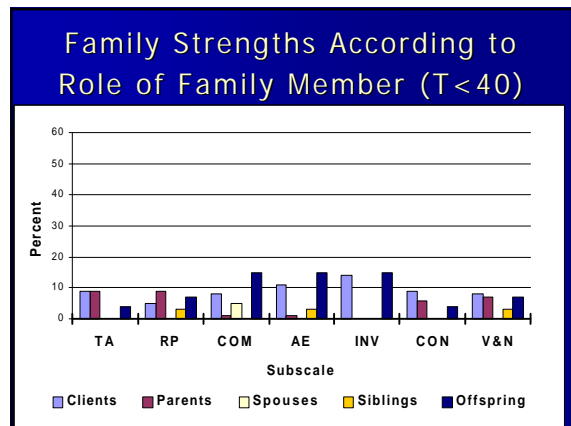
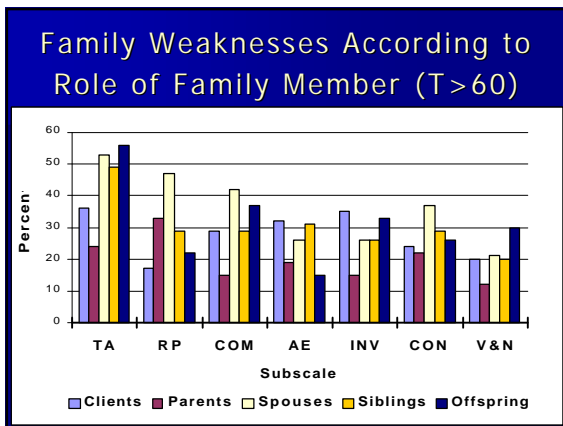
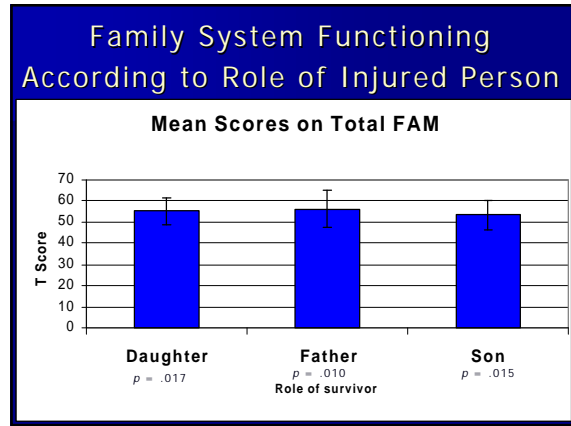
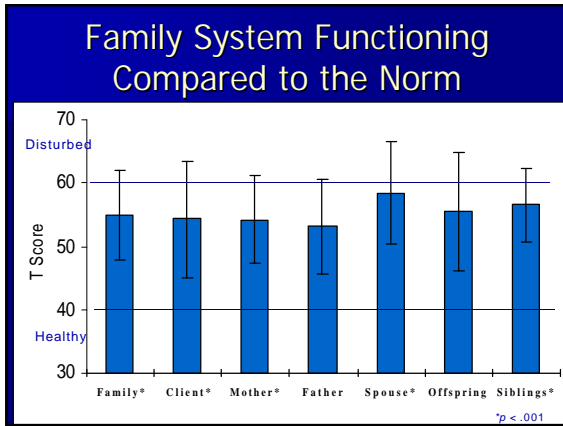
■ MVC	24
■ Assault	6
■ Fall	6
■ Sport/recreation	2
■ Self-injury	2
■ Disease/illness	25
■ Other	1

Type of Injury

■ Closed Head Injury	38
■ Infection	5
■ Neoplasm	8
■ Asphyxiation/anoxia	3
■ Stroke	4
■ Aneurysm	3
■ AVM	5

Family Sample (n = 148)

■ Mother	39
■ Father	28
■ Wife	18
■ Husband	1
■ Sister	20
■ Brother	15
■ Daughter	16
■ Son	11



Results

- Ratings of family functioning more dysfunctional than the norm regardless of who was injured ($p \leq .0005$)
- All clinical subscales in family system and caregiver (mother or spouse) were significantly elevated compared to the norm ($p < .002$)
- TA was the most dysfunctional followed by RP in family units - RP was most problematic in caregivers (spouses and parents)

Results (cont'd)

- Few strengths in family functioning from the perspective of all family members
- Family functioning was not predicted by neuropsychological or ABI impairment related variables
- Strongest predictors of family functioning were caregiver strain ($p = .039$) and client gender ($p = .023$)

Comparison to Other Literature

- Parents of ADHD children with significant oppositional behaviours felt less competent (Johnston, 1996)
- Stressed parents of ADHD children with behaviour problems consumed more alcohol (Pelham & Lang, 1999)
- Girls with ADHD elicited more parental distress than boys with ADHD (Podolski & Nigg, 2001)

Conclusions

- ABI associated with poorer family system functioning regardless of who is injured
- Individuals with ABI, mothers, spouses, & siblings report significant distress in family functioning
- Higher caregiver strain & client gender (i.e., female) are predictive of poorer family system functioning

Implications for Practice

- Support for the caregiver
- Intervention for the entire family system
- Focus on task accomplishment and role performance
- Attention to families with female survivor
- Long term supports

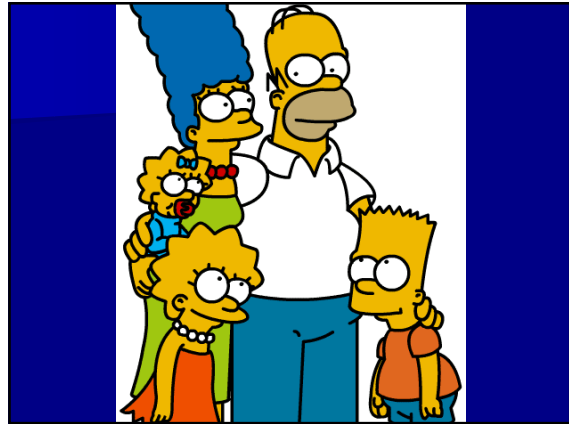
Future Directions

- Compare families in treatment to a sample not receiving treatment
- Longitudinal follow-up of families
- Further exploration of the role of gender



Future Directions (cont'd)

- Identify factors associated with resiliency in family functioning
- Evaluate responsiveness of FAM-III in measuring change in family functioning
- Evaluate outcome of family intervention



Selected References

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