Influence of parental perceptions and educators’ understanding of ABI on social, emotional and academic success as experienced by students living with the effects of acquired brain injury: A province-wide study.

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Itinerary

- Implications of ABI for Youth
- Classroom as a place of social, emotional and cognitive modeling and rehabilitation
- Barriers for teachers
- Provide-wide Study & Methodology
- Results
- Conclusions/Implications
- Q&A

Acquired Brain Injury (ABI)

- Highly Prevalent
  - Accounts for 30% of all paediatric injuries
  - Often is the result of trauma e.g. external forces such as falls (28%), MVC (20%) and other factors (7%) such as abuse, disease, anoxia, or drowning (Langlois, 2005)
- Considerably Variable in Presentation:
  - Varying etiologies contributing to neuronal disruption
  - Results in varying localization and diffusivity of injuries
  - Complicated by neurometabolic cascades

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Implications for Youth

The cognitive, emotional, social, and physical challenges experienced by these children and youth do not resolve quickly, and indeed can continue for many years or even for the duration of his/her life – well beyond discharge back to his/her community.

(e.g. Genders & Stroop, 2000; Rumney, 2007)

Children who have sustained moderate to severe TBI report significantly lower health-related quality of life, in particular in the domain of psychosocial functioning relating to school, relative to other heterogeneous sample of chronically ill children

(Rickkees, Montague & Gerola, 2010)

School Reintegration for Children and Youth with ABI

There is an acknowledged lack of direct correspondence between a student’s severity of ABI and his/her functional outcome (i.e., remaining and succeeding in the school system)

(e.g. Hawley, 2004; Chan et al, 2005; Rumney, 2007)

That is, Independent of injury severity, only some students are successfully reintegrated and succeed in school, while others continue to experience challenges, drop out, and fail.

There are an estimated 27,000 students with ABI in Ontario classrooms

School Reintegration:
- constitutes a primary goal for youth who have experienced ABI upon return to their home environment

Since school embodies the child and youth’s academic, social, and recreational life (children usually spend 28%-35% of their waking hours in school)

Teachers and their classrooms are a major Neurorehabilitative Resource to Children

- The classroom setting is where the student develops both academically and socially.
- Educators represent a natural, and readily available, resource of expertise to facilitate the (re)development of these vulnerable skills.

However,
- Classroom Educators often do not feel prepared to take on these responsibilities optimally
The categories of exceptionalities* in most schools in Canada cover the domains of:
- behaviour
- communication
- intellectual
- physical
- learning disabilities
*identified through IPRC – with resulting IEPs (accommodation or modification)

ABI is not a classification in Canada with the exception of:
- Newfoundland and Labrador
- British Columbia.

Major Barriers: ABI Classification

Major Barriers

- Educators are taught facts and strategies to assist children and youth as a function of the recognized exceptionalities

Academic Competence
- Most of their instruction targets academic and cognitive development exclusively; and only 4 of 11 Faculty of Educations in Ontario introduce the challenges of ABI

Social Competence
- Social Competence involves the ability individuals are able to use emotional knowledge to interpret and respond appropriately to social convention and daily social interaction (Feldman Barrett & Salovey, 2002).
- Educators do not feel adequately prepared to provide or assess social or emotional skills (Begeny et al., 2011; Bullock, Gable, & Mole, 2005).

Parental Perceptions
- For parents with a child who had previously sustained an ABI reported knowledge of ABI as major contributor to their satisfaction with instructional programing (e.g., teaching style, behavioural management, etc.)
  – More knowledge was associated with more satisfaction
**Research Objective**

Our goal was to find ‘modifiable’ variables (i.e. beyond the individual - the academic environment) that we can see to optimize to successfully reintegrating a student into the classroom and optimizing his/her scholastic, social and cognitive outcomes, and beyond the school experience!

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**Measures**

- **Behavior Assessment System for Children - 2nd Ed (BASC-2)**
  - Measure of numerous aspects of behaviour and personality – positive (adaptive) and negative (psychopathology) aspects
  - Forms targeted at specific age groups
    - Children (ages 8 -11)
    - Adolescents (ages 12 – 21)
- **Parental Involvement at School**
  - Index of parental capacity to work alongside teachers
- **Knowledge of Special Needs Questionnaire (KSNQ)**
  - Index of knowledge for special populations in education
  - Knowledge about ABI populations
  - Knowledge about other Special Needs Populations (e.g., Autism, ADHD, etc.)

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**Participants**

- 66 Students from Ontario, Canada (8 – 18 yrs. of age) who have experienced a moderate to severe ABI, 1 – 5 years post-injury, and have returned to the classroom
  - Grades 2 through 12; 48% elementary
  - 31% no IEP, 17% modified, 23% accommodated, 29% both; 67% are in regular classrooms

Matched with:

- Teachers (who are currently working with the child)
  - 77% > 5 yrs teaching experience
  - 6% are LRTs
What is Social Stress?

- Feeling of stress and tension in personal relationships
- A feeling of being excluded from social activities
- Typically considered chronic rather than situational

High levels of social stress often leads to negative psychosocial outcomes (Rook, 1984; Pagel et al., 1987)

- Parents reported that the cause for their dissatisfaction with their child’s instructional services is due to the lack of the primary teachers’ knowledge of consequences related to acquired brain injury (ABI).
- It is not known if these two factors influence student’s personal and social adjustment

Can social stress, reported by students with ABI, be predicted by their parent’s perceptions of the school’s provision of support, and the knowledge their teacher has of special needs and acquired brain injury?

The overall model can predict 44.3% of Social stress felt by the student living with ABI.

Parents perception of the school’s provision of resources uniquely accounts for 18.3% of social stress

Teacher’s knowledge of acquired brain injury uniquely predicts 13.4% of variance in social stress

Measures and Analysis
- Predicting self-reported social stress from:
  - Parent’s perception of school environment
    - As a parent are you given input and feedback when requested in regards to your child's education, and socially within the classroom?
    - Do you feel that the school offers adequate support in the classroom in regards to materials and properly trained staff?
    - Do you feel that your teacher changes their teaching method and plan to accommodate your child's learning; and assist them to participate with their peers?
  - Teacher’s knowledge of special needs
Social Stress: more specific relationships

- More stress with parent’s perception of lack of feedback
  \[ r = -0.28, p = .045, n = 52 \]
- More stress if parents perceive less support
  \[ r = -0.42, p = .002, n = 52 \]
- More stress if parents report less/inadequate accommodation
  \[ r = -0.31, p = .026, n = 51 \]
- More stress if teachers have less knowledge of ABI special needs
  \[ r = -0.09, p = .645, n = 31 \]
- More stress if teachers have more knowledge of Other special needs
  \[ r = 0.52, p = .003, n = 31 \]

Teacher’s knowledge of Special needs

- On average teacher’s responded correctly to only half of the questions about ABI or other special needs
  - ABI: 58.38% correct (SD=18.94)
  - Other: 51.88% correct (SD=15.24)

Teacher’s knowledge of Special Needs

- More knowledge about special needs other than ABI were related to students’ self-reports of:
  - Worse attitude to teachers
    \[ r = -0.41, p = .026, n = 31 \]
  - More inwardly directed distress (i.e., internalizing problems)
    \[ r = -0.44, p = .013, n = 31 \]
  - Less success relating to others
    \[ r = -0.43, p = .016, n = 31 \]
  - More stress in relation to interactions with peers/others (i.e., social stress)
    \[ r = -0.38, p = .036, n = 31 \]
  - Higher sense of inadequacy (i.e., feels inadequate to meet expectations)
    \[ r = -0.49, p = .012, n = 31 \]

Parent’s experience of school

- Better parents’ experience of school environment and support was associated with students’ self-reports of:
  - Better attitude to teachers
    \[ r = -0.31, p = .024, n = 51 \]
  - Less inwardly directed distress (i.e., internalizing problems)
    \[ r = -0.34, p = .016, n = 51 \]
  - Less emotional difficulties (i.e., ESI - emotional disturbance composite score)
    \[ r = -0.35, p = 0.012, n = 51 \]
  - More success relating to others
    \[ r = -0.31, p = 0.028, n = 51 \]
  - Better relationships with parents
    \[ r = -0.34, p = .014, n = 51 \]
**Academic functioning**

Furthermore, after accounting for student’s IEP status and severity of injury, these BASC-2 subscales relate to child’s overall OSR average explaining 39% of variability in the grades $F(3,25) = 6.44, p = .002$.

**Summary**

- Student’s emotional functioning was related to their academic performance, despite severity of injury or IEP status
- Better teacher’s knowledge of non-ABI special needs was associated with poorer emotional adjustment
- Better experience of school environment and more involvement from parents was associated with better emotional functioning

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**Implications**

Some aspects of student success relies on academic success but quality of life, resilience, self-view, confidence, reintegration success relies on emotional well-being and social skills.

And these are directly advantaged and honed by their learning environment and opportunities.

Anything that we can promote to enhance all of these successes will allow better outcomes for our children and youth who live with the effects of ABI.
Therefore

Concentrating on the modifiable variables can make a difference - emphasize educator knowledge and awareness

- Teach about ABI in the educator curriculum, on PA Days (e.g., discriminate ABI from other exceptionalities; provide strategies/tools)
- Improve communications between parents and schools
- Address/emphasize the school supports (IEP, resources)

All of these would be a given

IF we would recognize ABI as an exceptionality

Thank you!

Questions?

Results

Table 1: Social stress predicted by Parent’s Perception of School support and Teacher’s knowledge of special needs (N = 29)

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<th>Parent’s Perception Questions 2</th>
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</table>

*p < .05  **p < .01