

Traumatic Brain Injury and Social Processes in Rural Adolescents: A Qualitative Investigation



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Introduction

Pediatric Traumatic Brain Injury (TBI) is a serious public health concern in the United States. The least studied populations are those at the highest risk to sustain a TBI, specifically, youth, and especially those living in rural areas (Spearman et al., 2007; Faul, Xu, Wald, & Coronado, 2010). Despite the documented negative impact on social outcomes (Yeates et al., 2014) and relative importance of social functioning in youth, research is sparse with regard to how various injury and non-injury factors interact to influence social outcomes.

Method

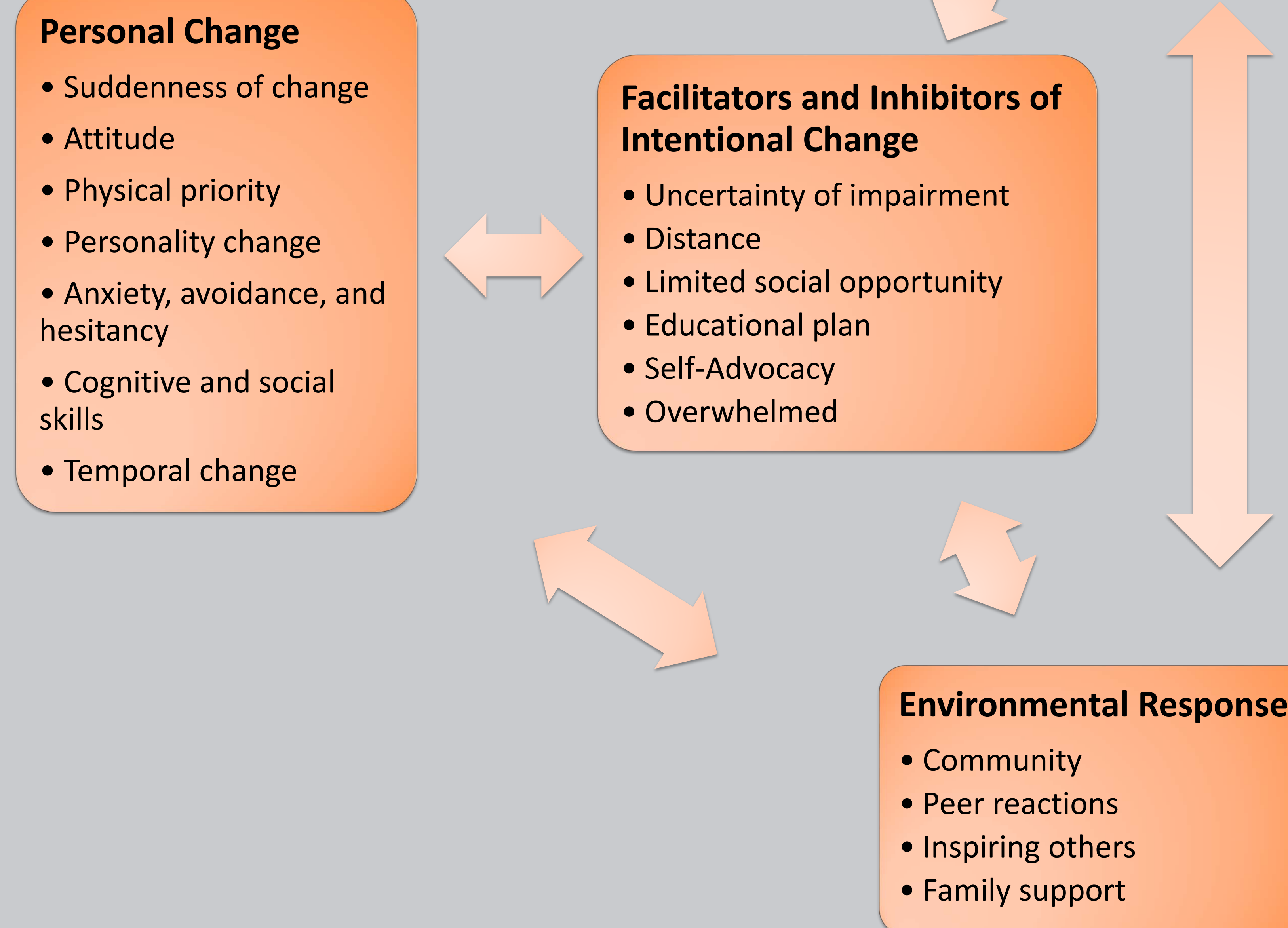
- Participants were recruited through a state-wide resource and advocacy association.
- Semistructured telephone interviews were conducted lasting 15-30 minutes for adolescents and 45-60 minutes for parents
- Interviews were transcribed verbatim and entered into qualitative analysis software
- Data was analyzed using flexibly applied grounded theory
- Development of themes using an iterative process and utilizing supplementary methods, including:
 - Theme queries
 - Visual modelling
 - Source tables
 - Consistency checks with second rater

Participants

- Participants included four adolescents (3 female and 1 male) and their mothers (3 mothers)
- Ages ranged from 15-18 at the time of the interview
- Brain injuries ranged from mild to moderate
- Participants resided in small towns ranging from approximately 200 – 10,000 people.

Results

- Four organizing themes were identified.
- *Personal Change* is the direct result of the brain injury.
- Likewise, *Environmental Response* encompasses more automatic responses, or responses over which the family has little initial control.
- Conversely, *Social Needs* are intentional, or desired, environmental adaptations that allow socialization.
- *Facilitators and Inhibitors of Change* represent actions toward changing the environment in the desired fashion and barriers to doing so.
- Themes are not mutually exclusive and can best be conceptualized as distinct, but highly related. Immediate changes as a result of the TBI determine desired response. The desired change is accomplished through mediating variables.



Example Quotes

- Personal Change
 - "For a while she didn't hang out with anybody because she didn't want to get in a car. I was the only one that she would let drive her anywhere." (anxiety)
- Environmental Response
 - "People were coming up to her and telling her that it made them feel like whatever they had going on was nothing. They were like, "You give me hope, you give me strength."" (inspiring others)
- FIICs
 - "There is one kid he could have hung out with here, ...they have some of the same interests, but some of their interests are um you know smoking marijuana and talking like that you know girls are great, or alcohol is great you know, he kind of shies away from them... and I don't see that as a bad thing. (limited social opportunity)
- Social Needs
 - "[My friends] would make fun of me, 'Oh, we have to explain it to [Name] again'." (cognitive)

Conclusion

- Themes and their interrelationships are emergent from the lived experience of rural adolescents with TBIs and their families.
- Ecological and involving multiple systems
- Derived from a focus on social outcomes, but broadly applicable
- Provides a framework for assessment and intervention that harnesses environmental resources, mobilizes facilitators of change, and reduces inhibitors of change.

Implications and Directions

- Social quality of life was generally high, but social disruption was reported for all participants.
- Impact was a result of interactive combinations of physical, psychological, and cognitive factors.
- Peer reactions were generally, but not uniformly, positive
- Needs changed over time
- Interviews with adolescents are important
- FIICs should be better studied
 - E.g., self-advocacy, social opportunities, educational plans
- All participants reported accommodations
- Reintegration and educational plans are important
 - Monitoring and reevaluation
 - Training for educators

References

- Faul, M., Xu, L., Wald, M. M., Coronado, V. G. (2010). *Traumatic brain injury in the United States: emergency department visits, hospitalizations, and deaths, 2002-2006*. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.
- Spearman, R. C., Stamm, B. H., & Tivis, L. J. (2007). Traumatic brain injury state planning grant: Preparing for change in a rural state. *Brain Injury, 21*(8), 837-849.
- Yeates, K. O., Bigler, E. D., Abildskov, T., Dennis, M., Gerhardt, C. A., Vannatta, K., . . . Taylor, H. G. (2014). Social competence in pediatric traumatic brain injury: From brain to behavior. *Clinical Psychological Science, 2*(1), 97-107.