

Keyword 3: motor function

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3 The Lived Experiences of Pediatric Stroke Survivors: A Qualitative Perspective on Psychosocial Outcomes and Quality of Life

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Objective: Despite knowledge concerning the prevalence and adverse consequences of pediatric stroke, there is limited awareness of the immediate and long-term effects on social-emotional functioning and psychological adjustment. Evidence from the broader childhood literature suggests that young individuals living with disabilities or neurological conditions are at considerably greater risk for emotional and behavioral concerns and lower quality of life. Qualitative research methodology can elucidate personal and subjective aspects of experience that cannot be entirely represented through quantitative measures. Although the parent experience of pediatric stroke has been qualitatively investigated, we endeavored to fill a gap in the pediatric stroke literature by focusing on the youth voice. The current project aimed to qualitatively explore emotional, behavioral, and social outcomes in pediatric stroke and identify personal and environmental factors that can influence psychological risk and resilience.

Participants and Methods: Individual interviews were conducted with 14 children, aged 8 to 18 years, with a history of ischemic stroke. The semi-structured interview protocol aimed to capture the lived experience of survivors and encompassed open-ended questions about daily life, memories, perceptions, and psychosocial experiences. Interviews spanned 40-60 minutes in length, were audio recorded, transcribed verbatim, and qualitatively analyzed using reflexive Thematic Analysis methodology. Coding, theme generation, and data visualization were completed using NVivo12 software.

Results: Participants discussed their views and understanding of their stroke, the perceived impact of stroke on their daily life, and the meaning-making process surrounding this experience. Children shared their perceptions regarding their abilities, challenges, life circumstances, aspirations, and relations to peers. Prominent themes encompassed shyness and social anxiety, cognitive and learning troubles, test anxiety, concealing feelings of sadness, the stigma of physical disability and its impact on social participation, bullying, and loneliness/isolation. Insight into adaptive coping mechanisms was present, as was emphasis on family closeness and the importance of supportive peers. Participants described feeling unique and were proud of their values and personal identity. Gratitude was expressed regarding stroke medical care and rehabilitative services, with an emergent theme surrounding the desire to give back to society.

Conclusions: Taken together, our qualitative study findings illustrate the profound impact that pediatric stroke can have on children's emotional experiences, personal identity, self-efficacy, learning, behavior, and psychosocial functioning. Despite these challenges, an enormous degree of resiliency was also demonstrated in youth's insights into coping and adaptation to challenge. Our findings speak to the importance of psychological assessment and treatment planning surrounding internalizing symptoms in children with stroke. Given the potential for pervasive changes in various aspects of daily life, a comprehensive understanding of the personal psychological experiences and perceptions of pediatric stroke patients is essential, as it will facilitate opportunity for timely interventions that can improve coping and adaptive outcome. Implications will be discussed with regard to empowering pediatric stroke survivors, enhancing public education efforts about childhood acquired brain injury, and reducing stigma associated with disability and use of required supports.

Categories: Acquired Brain Injury (TBI/Cerebrovascular Injury & Disease - Child)

Keyword 1: stroke

Keyword 2: quality of life

Keyword 3: anxiety

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4 The Association Between Pro-Inflammatory Cytokines and C-Reactive Protein and the Cognitive and Neurological Outcome in Stroke Survivors: A Systematic Review

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Objective: Childhood ischemic and hemorrhagic stroke is often associated with neuropsychological and cognitive deficits. Stroke induces an inflammatory response in the central and peripheral nervous systems. High levels of inflammatory markers in the plasma have been associated with poorer cognitive outcomes. The role of inflammation in neurological prognosis of stroke has been studied previously; however, there is a limited understanding of the association between inflammatory markers and neuropsychological outcome post-stroke. The present review examined the existing literature on the association between inflammatory markers and post-stroke functioning.

Participants and Methods: Data bases (PsycINFO, PubMed, Web of Science, and Ovid) were reviewed in October 2020. Articles were restricted to English-language literature. Articles were included regardless of recruitment setting, number of strokes, mechanism of stroke, timing of blood collection and outcome assessment. The articles focused on patients with stroke (between the ages of 0 to 95), measured post-stroke outcome by neurological and cognitive outcome measures (i.e., it included findings on any aspect of cognition such as memory, information processing, or attention), and on pro-inflammatory cytokines and c-reactive proteins as measures of inflammation. The systematic literature search retrieved 954 articles to review against inclusion criteria. Descriptive statistics were performed using IBM SPSS 27.0 Statistics Software.

Results: A total of 18 articles were included in this review. The population age ranged from 21 to 95, and, when reported (n=17), mean

participant age was 66.31. Among stroke patient populations, ischemic stroke was most researched (n=15). The most widely investigated biomarkers were CRP (n=9), IL-6 (n=8), TNF- α (n=7), IL-1 β (n=5), and IL-10 (n=5). The time of initial blood collection ranged from on admission to within 3 months poststroke. Equal number of studies used both neurological and cognitive tests (n=7), or only neurological (n=7), 2 studies only used cognitive tests, and one study used all three types of measures. The most commonly used cognitive test was the Mini Mental State Examination, MMSE (n=7). The next commonly used cognitive test was the Montreal Cognitive Assessment (MoCA), (n=4). Only two studies used a comprehensive neuropsychological battery.

Conclusions: There is a lack of research into diverse stroke populations. All the studies examined the association between inflammatory markers and the post-stroke outcomes in adult populations and mostly in patients with ischemic stroke. The lack of research on pediatric and young adult stroke represents a significant gap in understanding predictors of neurological and cognitive outcomes. Further, the review revealed a lack of comprehensive neurocognitive assessment post stroke, with most studies measuring neuropsychological outcome using brief cognitive instruments. Our findings highlight a critical need for addressing the above gaps to help elucidate the role of inflammatory markers in the neuropsychological prognosis of stroke in younger populations.

Categories: Stroke/Cerebrovascular Injury & Disease (Child)

Keyword 1: stroke

Keyword 2: cognitive functioning

Keyword 3: neuroimmunology

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Symposium 02: Current Directions in Women's Neuropsychology Research

9:00 - 10:30am

Thursday, 2nd February, 2023