

THE ARROWSMITH PROGRAM: IMPROVING THE LIVES OF INDIVIDUALS WITH CONCUSSION AND BRAIN INJURIES

By: Howard Eaton, Ed. M. and Josh Poirier, M.S. Ed.



The Arrowsmith Program was developed over the last 40 years by Barbara Arrowsmith-Young. The focus population for intervention over those years has been individuals with learning disabilities or difficulties. Research on the Arrowsmith Program and the LD population shows the effectiveness of the intervention on improving cognitive and academic abilities as well as social-emotional well-being. This research has taken place in various countries including Canada, United States, Europe, and Australia.

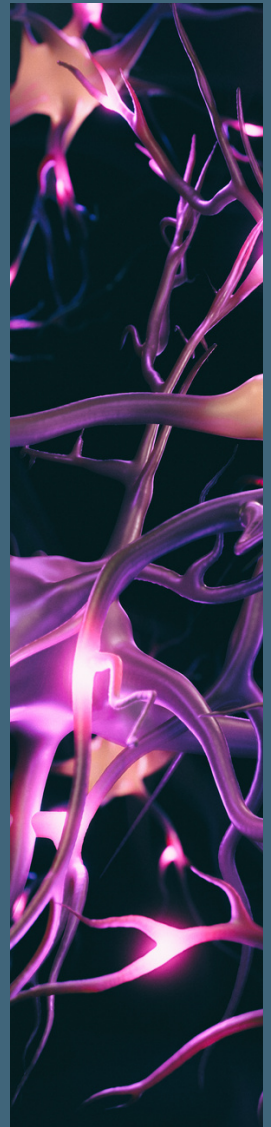
During those 40 years, the Arrowsmith Program has received calls from parents with children faced with other types of primary disabilities such as ADHD, autism spectrum disorder and even brain injuries. Out of a desire to help these children, and an intellectual curiosity as to how the Arrowsmith Program would impact their cognitive functioning, they were accepted into the program under the condition that progress would be monitored carefully and if cognitive capacity change was not noticed then their program would be discontinued.

At the Arrowsmith School in Toronto, Ontario, Barbara Arrowsmith-Young decided to work with a few individuals with brain injury. The results were positive, in that they were progressing through the cognitive exercises, specifically improving executive functioning, which in the brain injury population is a significant cognitive deficit that dramatically lowers quality of life. Return to school or work is hindered by executive functioning problems that remain post brain injury event.

In 2012, Mark Watson, at the time working with Howard Eaton at Eaton Arrowsmith School, approached Ms. Arrowsmith-Young to inquire as to whether she would have an interest in them bringing her educational program into the healthcare space. Eaton Arrowsmith had also accepted a handful of teenagers who had suffered brain injuries. The parents had discovered the school, read about the Arrowsmith Program, and hoped that their children's cognitive capacities could be improved, as they were continuing to struggle after they had received the standard of care available in the healthcare system. Like Ms. Arrowsmith-Young, at her Toronto, Ontario school, these teenagers showed improved cognitive functioning. This was measured on the Arrowsmith Assessment, but also observed through behavior change by their parents and the healthcare professionals assigned to their case.

Ms. Arrowsmith-Young agreed to allow Howard and Mark the opportunity to move the Arrowsmith Program into the healthcare space. The focus would be to first research the impact of the Arrowsmith Program on the brain injury population at the University of British Columbia. If the results were positive, and published, then they would work to get hospitals, physiotherapy clinics and other healthcare organizations to license the program for their clients. It was already understood that there was a gap in healthcare services for the brain injury population in that there was no cognitive intervention program being used to improve the neurological functions or networks of the human brain based on the concept of neuroplasticity and cognitive enhancement.

Fortunately, Dr. Virji-Babul and her research team at UBC was curious, and interested to see what the Arrowsmith Program could do for this population. The research got underway in 2016, data was collected, results analyzed, presented at neuroscience conferences and then published. Additional research was conducted on the data and presented at conferences up until 2020. In short, the results were positive with significant improvement in specific large scale brain networks, corresponding improvements in cognitive capacity associated with executive functioning were noted (Porter, et al., 2017) (Brucar, et al., 2019) (Sevick, Virji-Babul, & Panenka, 2020).



As a result of this research and the clear positive impact of the Arrowsmith Program on the brain injury population, a company called ABI Wellness was formed by Howard and Mark. Today, roughly four years into the founding of this company, large and small healthcare clinics are using Ms. Arrowsmith-Young's cognitive exercise programs to improve the quality of life of individuals with brain injuries. Hundreds of individuals with brain injury have engaged in the program. The clinics using the program are seeing almost double the usual return to work rate in their clients due to improvements in executive functioning, and reduction of mental health concerns such as anxiety and depression. It has been extremely rewarding work.

Today, Eaton Arrowsmith Center for Neuroeducation's onsite locations in Vancouver, British Columbia and Redmond, Washington offer the same program researched by Dr. Virji-Babul at the University of British Columbia, and now used in major hospitals and healthcare facilities around North America. Children, teenagers, and young adults who suffered brain injuries or concussions are therefore now able to benefit from this life-changing work. Access online, with highly trained cognitive instructors who provide individual guidance, is now available to individuals who cannot travel to our onsite locations.

It is important that parents of children with brain injuries and of course, adults with brain injuries, do not accept that cognitive deficits are life-long or that strategies and accommodations are the only way to improve quality of life. The years of experience and research noted above shows this is just not the case. The brain can change, cognitive capacities can be improved, and quality of life enhanced for those with brain injuries.

Connect with us to learn more.

Eaton Arrowsmith Center for Neuroeducation offers the Arrowsmith Program online with teacher-guided classes and in person in Vancouver BC, and Redmond WA.



eatonarrowsmith
Center for Neuroeducation

www.eatonarrowsmith.com

(844) - 264 - 8327

Works Cited

Brucar, L., Torres, I., Panenka, W., Muller, A., Kenny, R., & Virji-Babul, N. (2019). Changes in brain network organization and brain-behaviour relationships following a 3-month intervention. *13th World Congress on Brain Injury*. Toronto.

Porter, S., I.J, T., Panenka, W., Rajwani, J., Fawcett, D., Hyder, A., & Virji-Babul, N. (2017). Changes in brain-behavior following a 3-month pilot cognitive intervention program for adults with traumatic brain injuries. *Heliyon*, 1-19.

Sevick, J., Virji-Babul, N., & Panenka, W. (2020). Alterations in Resting State Functional Connectivity in Patients with Traumatic Brain Injury . *University of British Columbia, Department of Medicine, Psychiatry , Psychiatry Research Day*. Vancouver.

