

Drawing Together Neuroscience, Play, Art, and Narrative (PAN)

Co-Creating a Resilience-
Enhancement Toolkit for Children in
Vulnerable Contexts



University
of Regina



Child Trauma
Research Centre
UNIVERSITY OF REGINA



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Executive Summary.

There is no doubt that the effects of COVID-19 continue to linger, particularly for children, and even more so for children who find themselves in vulnerable contexts.

Counselors, social workers, teachers, health care providers, therapists etc., all point to the lack of connection as one of the more detrimental variables affecting young people's mental health and wellbeing.

Our literature review pointed to

- the importance of neuroscientific development and interventions
- the effects of childhood trauma
- resilience-enhancing play-based interventions

as important factors to consider when shaping prevention and intervention activities for children and youth.

Drawing heavily on the work of Karen Wallace and Patrick Lewis (Trauma Informed Teaching Through Play, Art, and Narrative, 2020) we created 3 Connection Kits as well as the accompanying activity suggestions to support the school support specialist (SSS) working alongside children, and then to support the children to take the materials and activities home to involve a responsible adult - thus addressing two other gaps identified to us: the lack of access to internet-based resources, and the lack of the ability to bridge activities between school and home.

We found that neuroscience and play, art, and narrative-infused activities were excellent contributors to self-regulation, connection, and enjoyment, and that the children and responsible adults really enjoyed working with the activities. The CTRC has already drawn on the findings from this project to shape other connection projects supportive of - one with Growing Young Movers and one with community arts-based organizations. The hope is to continue building on this foundation to create a model for arts-based, community-grounded, wellbeing projects.

What were we trying to address?

It was brought to the CTRC's attention that as students were returning to schools post the COVID lockdowns, the students' behaviour was more dysregulated, and there seemed to be less connection, whether the connection was what students have with themselves, with each other, or with the adults in the building. Equally, educators in schools were looking for ways to engage students in creative ways to develop connection practices, self-regulation, and resilience. And while the Child Trauma Research Centre does not accept the conditions that shape the need for resiliency (systemic oppression, poverty, violence, neglect, etc), we wanted to support those supporting children

As such, we sought to synthesize the expertise of our collaborative team to co-create and facilitate the integration of a resilience enhancement toolkit, named *Connection Kits*, for children ages 6-8, mainly based on neuroscience and the principles of play, art, and narrative -PAN (Wallace & Lewis, 2020).

Key Issues

Connection & Reconnection

Wellbeing

Resilience

Innovation

Bridging Home-School-Community Divides


Increased behavioural issues

Reducing need for internet access


Project Time Line.




Highlights.




The Saskatchewan Alliance for Youth & Community Well-Being points to children's mental health and well-being as significant concerns in the experience and wake of COVID-19. The Connection Kits fostered mental health through our understanding of mental health as a critical aspect of human health, in the hopes of mitigating and reducing some of these long-term impacts, increasing positive interactions, and decreasing isolation.



It is of critical importance to mobilize timely health research knowledge in an innovative way, to whom it is most needed. We did so through our multidisciplinary team. This team built capacity through learning with and training research assistants and a school support specialist who works alongside children in vulnerable contexts in schools, thus laying the foundation to support and secure funding for subsequent studies.



The potential for this project's long-term impacts is a strength: In Canada, the annual long-term costs associated with childhood adversity are estimated at \$23 billion[1], and every \$1 invested in a child's early years is estimated to save \$16 in future spending on healthcare and social services. Early intervention can mitigate some of these costs.



The school support specialist on our team identified this kind of resource as lacking. Making it a print resource responded to inequities in technological access. It also supported kits to carry the physical materials for an activity to their homeplaces to use alongside someone else, thus bridging the home-school divide that the school support specialist had identified as foundationally important to any initiative responding to children's needs.

What were we hoping to accomplish?

Our vision was to shape, sustain, and support long-term wellbeing and resilience using neurobiologically and developmentally sensitive trauma-informed approaches; sensory-based spaces and activities to promote self-regulation, free expression, and creativity; activities that improved concentration, focus, and alertness (e.g., optical, acoustic, olfactory, tactile experiences); and, activities to increase bonding and build/repair attachment relationships. We supported children to increase self-regulation and build healthy relationships with the ultimate goal of enhancing resilience. We included tools and activities to be used by children alongside a school support specialist in school contexts and then by the same children in their homeplaces to promote healthy interactions with caregivers and support mutual well-being and resilience.

Across the four phases of the activity, we accomplished the following five main objectives:

- Curate a multi-disciplinary university-community collaborative team of subject matter/ lived-experience experts including youth to create and mobilize knowledge, and to better understand existing knowledge through Integrated Knowledge Translation (iKT) practices.
- Conduct a lit review of play, art, and narrative therapies, and neuroscience research, including BrainStory® the Neurosequential Model of Therapeutics®, and the Attachment, Self-Regulation, and Competency (ARC®) framework.
- Translate that knowledge and co-create the Connection Kits. At each stage we drew the literature alongside team members' knowledge and experience to inform co-creation.
- Support a school support specialist to use the kits with children in schools, and caregivers/ responsible adults at home.
- Elicit feedback to shape modifications for future projects.

How did this project connect with our funder's goals?

The purpose and objectives of the proposed literature scan, team knowledge-sharing, and Connections Kits are closely aligned with those of the Saskatchewan Health Research Foundation's Research Connections Program:

- The project took relevant and emergent neuroscience, mental health, and PAN research, and translated it for and with children in vulnerable contexts, with the added benefit of also reaching those who participate with the children in the activity (school support specialist/responsible adult/sibling).
- This project represented a multifaceted knowledge mobilization initiative with far-reaching possibilities, including enhanced caregiver well-being achieved through participating in activities shaped to support resilience.
- These Connection Kits represent an innovative print tool (to address a gap we were seeing on the landscape, but with the possibility of future digital proliferation).
- This project meaningfully engaged diverse stakeholders, building and strengthening relationships that will facilitate further engagement and collaboration with the subsequent research study.
- The co-creation, use, and integration of the Connection Kits supported student and knowledge user training in a variety of areas: literature review training, KMB training, communications/stakeholder relations training, program evaluation training, and school training to use the RET alongside children and to facilitate use with responsible adults.

What did we find?

Literature Review Highlights

Theme #1: Neurospecific Development and Interventions

- Using serve and return patterns in play supports healthy brain architecture, development, and response
- When children learn to better manage stress, it helps them to build resiliency
- To help balance adverse childhood experiences, there is a need for adding protective factors and interventions for children
- One way to relieve stress is through engaging in activities that expend body energy. When a child experiences trauma, they release stress hormones which impact all parts of the body, which means a body-based response can be an effective way to address the trauma
- To re-build pathways for regulation and safe connections, play and art can provide means of connection and expression
- When interviewing children who have experienced trauma, key components include Relational, Relevant, Repetitive, Rewarding, Rhythmic, and Respectful (Neurosequential model of Therapeutics)

Theme #2: The Effects of Childhood Trauma and Supportive Interventions

- In Canada, threats to children include accidents, preventable injuries, infant mortality, food insecurity, decreased immunization, suicide, depression, anxiety, child abuse, poverty, obesity, discrimination, bullying, among others (please see Children First Canada)
- The vast majority (92%) of research is focusing on describing childhood trauma, with limited work conducted on interventions or prevention
- Childhood adversity is estimated to cost \$23 billion dollars annually in Canada
- Developing resiliency and relationships with others can help children who have experienced trauma
- Achieving balance in the mind, body, spirit, and context can help people move towards wellness
- The ARC framework can be used to help children form attachments and connections, manage stress, and learn about their identity and potential future identities

Theme #3: Resilience Enhancing Play-Based Interventions

- There are developmentally appropriate and supportive types of play that can shape (re)connection
- Play can mean many things and does not have to fall into one category
- Many children do not play now in a way that connects them to the natural world, and this can be connected to poor mental health and obesity
- Children can explore their feelings safely through play, and encouraging children to use their own unique expressions in play can become more authentic and effective in their communications
- Commonly in art therapy, drawing, painting, sculpting, and collaging are used
- Children can tell their stories through story telling and constructive play, which enhances their executive functioning skills

Interview Findings.

Please note: due to the shorter timeframe of the data collection phase, and due to the pilot nature of this project, only the school support specialist was interviewed. This interview was approved by the Research Ethics Board at the University of Regina. The findings from the interview have been organized by theme.

Theme #1: Impacts

The Connection Kit impacts could be observed across multiple domains. While the longer-term impacts of the Kits could not be measured, the school support specialist was able to identify the excitement and motivation the kits provided, both in the school context and in the children's ability to take the Kits home. She said "for a lot of the kids who got it it wasn't things that they had access to in their home or even, the oil pastels such a little thing but the kids loved that. New markers, new crayons, they were thrilled."

She then was able to assert that she had observed "a connection-a deeper connection with me, the facilitator, with their parents." This was an exciting finding as it offers promise for this kind of endeavor to be taken up in broader contexts.

The third domain that the school support specialist was able to identify was the impact on regulation. She said, "I think they-they were able to take away even just that awareness of how to use some of these different things to help regulate."

Interview Findings.

Theme #2: Practitioner impacts

Often, practitioners are seen as the conduits of new programming or new initiatives. An element to which we hoped to remain attentive through this project was the impacts it may or may not be having on the school support specialist, in addition to the children with whom she was using the Kits. Engaging in regulation and connection practices often involves modelling those practices and in so doing, the practitioners may also experience benefits. The school support specialist identified that the Connection Kits benefitted her, in addition to benefiting the children with whom she used them. The school support specialist stated, that she "gained awareness of a couple different therapeutic tools, and that she gained "different ideas to draw on some already present things that I'm using."

Theme #3: Improvements moving forward

There are some areas of improvement that could be considered moving forward. The bins that housed all the materials were quite large and the school support specialist suggested that different packaging and different packaging for families might make the use easier. The school support specialist also suggested that more guidance as to how to weave the Kits into her practice would have been supportive of her experience.

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Interview Findings.

Theme #4: Overall feedback.

The school support specialist shared that all parties involved enjoyed their experience with the kit. She noted: “The parents were thrilled with the resources.”

She also foregrounded the benefits to the children she worked alongside:

“Give them something actually creative, something, you know, that they have to think about, focus on, connect with, that wasn't just a video game, that was really important to me and I know that they enjoyed it.
The kids loved it.”



Discussion: What did we learn?

Constructing toolkits that engage the children, provide them choice on what they could do, encourage creativity, and support them to connect with the facilitator, and then with a responsible adult, shapes the possibility for children to develop resiliency.

These kits, and experiences like them, have the ability to impact not only the children using them, but also other children, the school support specialist using them, teachers, and other responsible adults. Going forward, we will continue to use and build on what we have learned from these Connection Kits in shaping other activities and programs to support those who spend their days working with children and youth.

The Kits were not only enjoyable for children to engage with, but parents also got to use the resources from the kit. Bridging school and home is an important aspect to the development of a community of support surrounding a child.

This project reached some children who do not have access to new materials and resources to be creative with, and the facilitator noted these children in particular were thrilled with the opportunity. Offering take-away materials and instructions is supportive of an 'ongoing-ness' that often does not accompany research experiences. We will carry this learning forward into other projects as well.

Where will this project lead us?

What are the potential impacts?

- ↳ Supporting educators through indirect trauma-sensitive professional development
- ↳ Supporting children indirectly through facilitator gained knowledge
- ↳ Supporting other projects
 - 2 projects have directly drawn upon this project's findings to date:
 - Take Up Space! You Matter! Supporting (re)Connection Through Trauma-Informed Community Arts-Based Programming
 - Developing a Microcredential in Trauma-Informed Pedagogies and Practices
- ↳ Supporting a model attentive to technological and geographic diversities, as well as to post-research longevity



Recommendations.

Several suggestions were made regarding how to proceed with this toolkit in the future:

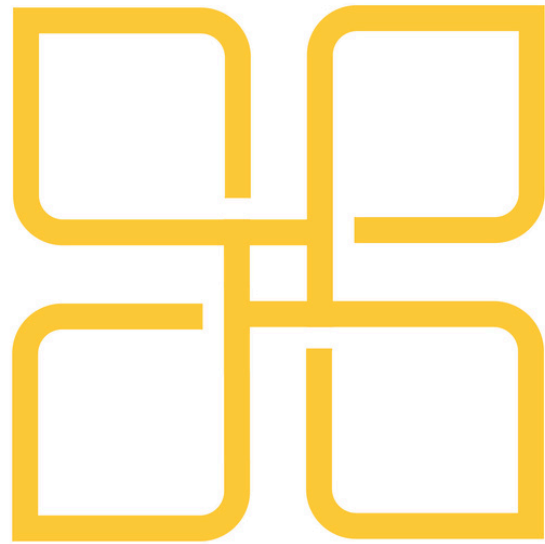
- Provide more instruction on how some of the materials can be used
- Re-packaging the kits into smaller versions may allow for families to get multiple uses
- Include additional information on how the facilitator can incorporate materials into their role, and/or provide training session(s)
- Provide more education and awareness to parents
- Explore ways in which this project could be implemented into a classroom or parenting group - create a model for others to be able to download and use
- Establishing ways to increase involvement from the parents to continue to bridge the gap between home and school

Conclusion.

Thanks to the Saskatchewan Health Research foundation for supporting this project. It brought together an exceptional group that offered their knowledge and expertise. From teachers, to parents, to academics, to researchers, to a youth, to a social worker, to a psychologist, to a school support specialist, to someone who is studying the importance of play, this work supported from multiple perspectives.

Thanks also to the school support specialist who took it upon herself to delve into this project and then the Kits alongside the children and families with whom she works, and then to provide us invaluable feedback supporting us to think forward with this project.

As we continue to think with its outcomes, we can already see the reverberations of what we have learned in other projects we have done. This has been an exceptional project.



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