Evaluation of the HEROES program: Trauma Informed Care practices

Alexandra Sanderson, PhD

Social Science Department

Ambrose University

HEROES is a unique program run by the IMPACT Society for youth between the ages of 11 and 14. The curriculum is designed to promote resilience in youth through its provision of programming centered on neural and cognitive development. The curriculum is provided yearly across twelve classes, and the youth may take part in programming for a maximum of three years. Importantly, this program is multidomain focused, including parents, teachers and communities, as these systems form a key part of the experiential learning that assists in the reinforcement of learned material. The design of the curriculum is centered on leading youth through an educational and experiential journey, in order to aid them in discovering their dominant strengths, to build self-confidence, productively connect with others, and contribute to the greater good. The emphasis of the program is strength based, recognizing that nurturing environments provide the safety necessary to free up cognitive space dominated by emotional reasoning thereby allowing the youth to assimilate lessons and to leverage their discovered strengths to promote optimal cognitive, emotional, social, academic and behavioural gains.

It is however recognized that not all youth will be able to utilize the learnings of HEROES with ease for a myriad of reasons. Widely recognized variable that hinders educational attainment of personal positive lessons stem from aversive and traumatic experiences. As a result, the question at hand is whether a program like HEROES can support youth who have elevated levels of negative experiences to successful assimilate the information taught due to higher levels of dysregulation and negative biases in thinking regarding the self, other and the world.

The following white paper will consider the HEROES program for its ability to support youth who have experienced adverse childhood experiences (ACEs) by reviewing: the design of the HEROES program, noted impacts of trauma on the brain, and how these impacts can interfere with the adoption of positive lessons, as well as key research covering the benefits of programming like HEROES to mitigate the

impacts of trauma and risk. Last, this document will conclude by making key recommendations for

educational and curricular additions to the teaching elements of the HEROES program.

THE HEROES Program

The HEROES program was born out of the belief that youth need to be surrounded by individuals that

will support them through the key developmental years of adolescence, while they are engaging in

identity formation. Curriculum aids youth in identifying their dominant personal, environmental and

performance strengths so that the youth learns to leverage these strengths so they can flourish across

personal, social and educational domains. Youth cover teachings that support them in: forming positive

attachments to both peers and supportive adults; feeling empowered to have choice and be hopeful

about their future; understanding the need to be civically connected; and to develop an understanding

their unique value, that should be treated with fairness, equity and respect. Youth are provided a safe

environment to learn in where they can use their voice while participating in the program. They learn

key values to guide their thinking and behaviour and ultimately learn they are capable of charting a

future that is positive in its trajectory. The HEROES program provides learning materials to both teachers

and caregivers so they can support the youth in a knowledgeable fashion so they can proceed through

the program successfully.

Adverse Childhood Experiences

Since Perry's formative research in the 2000s, it has become clear that educational efforts as a whole

need to consider how Adverse Childhood Experiences (ACEs) negatively impact a child or youth's ability

to learn educational material.   Furthermore, ACEs have consistently been found to negatively impact

development, predisposing children and youth to experience additional risk factors, which interactively

hinder optimal development thereby limiting the potential for positive developmental trajectories and

outcomes. Adverse events are ones that are stressful and traumatic, such as neglect, maltreatment, loss,

parental separation/divorce, parental addiction and parental psychopathology (Divya, et al., 2021).

Prevalence figures indicate that a substantial proportion of Canadian children and youth are exposed

to ACEs during key developmental periods. Divya et al's (2021) study of 51 388 Canadian adults indicates

that over 60% had experienced at least one adverse childhood event (ACEs), with physical abuse,

intimate partner violence and emotional abuse being the most commonly encountered adversities.

Divya's findings are very similar to MacDonald et al.'s findings for Alberta, where 49.1 % of respondents

experienced at least one ACE during development. Of note, Alberta was one of the Canadian provinces

demonstrating higher levels of childhood exposure to emotional abuse and intimate partner violence

(Divya et al., 2021). Similar findings for the prevalence of childhood abuse are found throughout

Canada, with Afifi et al., (2021) noting the prevalence rate of 36.1% for at least one form of child abuse

experienced by the respondents in Alberta. These similarities in prevalence suggest that within Alberta

about a third of children may be exposed to higher risk conditions, where some form of abuse and

household dysfunction are present (MacDonald et al., 2015). Given these prevalence rates, it is

imperative to consider programming elements and their ability to compensate for the impacts of ACEs

on learning.

It is important to note that the impacts of ACEs are often dose dependent, with increases in severity

and/or number of experienced ACEs positively correlated to adverse mental health, developmental and

educational outcomes, such as: depressive and anxiety disorders, addictions, suicidal ideation, learning

difficulties, and traumatic stress disorders, as well as poor health outcomes, lower levels of social and

emotional supports, and low educational and/or economic achievement (e.g., Afifi, et al., 2014; Bethel et

al., 2016; 2012 Canadian Community Health Survey; Johnson et al., 2021; McDonald et al., 2015; Perry,

2001). This finding emphasizes the need to ensure that intervention programming can be successful in

supporting youth who have been exposed to aversive experiences.

Physiological Impacts of ACEs

   Although stress is a normal experience, when stress is ongoing or extreme as is seen in the case of

trauma, it can be made worse by a limited ability to control outcomes and/or a lack of significant

supportive adults to aid in modifying stress levels. When these conditions are present, we are more

likely to see limitations on optimal development. The limitations are directly tied to the ongoing release

of stress hormones (National Scientific Council on the Developing Child, 2005/2014). When the

developing brain is exposed to higher levels of stress hormones on a regular basis the amygdala or fear

center of the brain becomes more responsive to negative cues in the environment at lower levels, so

that minor stressors will easily trigger a physiological stress response. As a result, children or youth who

have experienced ACEs are more likely to be emotionally focused – in other words, anxious. The ongoing

elevated stress response also hinders development in the hippocampal region, making it difficult to

retain learning, resulting is an underproduction of neural connections in brain areas involved in

reasoning, planning, emotional regulation and control of behaviour (National Scientific Council on the

Developing Child 2005/2014). These limitations in cognition make facing challenges and adaptive

problem solving difficult hindering learning overall. The end result is that the child may have increased

difficulties in language, reading and problem solving creating lower levels of self-esteem and self-efficacy

(e.g., Johnson et al., 2016; National Scientific Council on the Developing Child, 2005/2014; McDonald,

2015).

   Behavioural difficulties have been also connected to ongoing stressors and adverse experiences in

the familial domain, such as family conflict and divorce.   A warm and stable environment, a place where

a caring adult figure is present to help regulate anxious emotional responses and process the difficulties

encountered in daily life, supports the attainment of the ability to understand of one's own and others'

emotional responses. If these optimal family conditions are not present during development it

contributes to the lack of ability to understand and regulate one's own emotions as well as appropriately

respond to others in institutional and social environments, leading to difficulties with making and

keeping friends, problems dealing with authority figures and adherence to socially acceptable standards

of behaviour. As a result, the child/youth may experience further stresses within the broader systems

within which they interact, such as school due to poor interactions with peers and/or teachers (e.g.,

National Scientific Council on the Developing Child, 2005/2014; Winer & Thompson, 2013).

There is a myriad of risks that worsen ACEs, such as household stress, parental psychopathology,

lack of an adult English speaker in the household, race/racism, larger families with four or more children,

frequent residential relocations, single parent households, parental unemployment and poverty (e.g.,

Bernard, et al., 2021; Evans et al., 2013, Johnson, et al., 2021; Winer & Thompson, 2013).   Any

combination of these aforementioned risk factors, contribute to the creation of chronic stress responses,

which appears to epigenetically alter the expression of genes that regulate the stress response, thereby

changing how an individual respond to stress throughout their lifecycle (e.g., National Scientific Council

on the Developing Child, 2005/2014). Specifically, ongoing negative experiences and stressors remove

the child or youth from a resilient zone by creating brain responses that are chronically dysregulated

leaving the youth "stuck in a state of either hyperarousal (being bumped above the Resilient Zone) or

hypoarousal (stuck below the Resilient Zone) or oscillation between the two extremes as the nervous

system attempts to find a balance" (Leitch, 2017, pg. 7). Not surprisingly, mental health conditions,

including depression, anxiety, addictions, obsessive compulsive disorders and post-traumatic stress

disorder have been clearly linked to ongoing experienced stress (e.g., Afifi, et al., 2014; Evans et al.,

2013; Sperry & Widom, 2014).

Given this, arguments are made for the necessity of interventions to identify and work with youth

who may have had exposure to multiple risk factors in order to provide the buffers needed to mitigate

the impacts of ongoing stresses and address the difficulties that have come from traumatic and adverse

events (Evans et al., 2013; Johnson et al., 2021). Identification of youth or provision of programming

aimed at supporting all youth in their ability to thrive is key as research has noted that positive

experiences have a significant mediating effect limiting the impact of negative past experiences in

children and youth (Bethell, et al., 2019).   Moreover, these Positive Childhood Experiences (PCEs) have

been found to be dose dependent, so that they increase the youth's ability to self-regulate the stress

response, aid in learning, support social-emotional understanding and decrease behaviour difficulties

thereby promoting the ability to flourish (2019).

Trauma Informed Programming and HEROES

Programming like HEROES, that works to enhance the unique developmental strengths of youth

provide a key component to Trauma Informed Care. Successful interventions identify the individual

strengths of youth as well as noting areas for growth, allowing for the youth to use their strengths to

adapt to challenging situations.

Gains in Developmental Assets

Gains in understanding personal strengths and the development of personal and social assets

are clearly connected to resilience or thriving and these are key components to the HEROES' program.

Research has noted that when youth are supported in developing an understanding of their personal

strengths and skills, they are more likely to develop positive relationships at home and with peers, and

develop positive connections within the community that promotes the attainment of social capital (e.g.,

Roehlkepartain, et al., 2017; Scales et al., 2016). The learning gains regarding one's self strengths as well

as the connections made with others aid the youth in adaptive problem solving and successfully

resolution of challenges. As a result, the youth are able to use their assets to promote gains in cognitive

and social emotional arenas, resulting in more accurate interpretation of the self's capabilities and

other's intentions, promoting positive behavioural choices that work to increase overall well-being (e.g.,

https://www.impactsociety.com/ ; https://flourishinglife.com/framework; Roehlkepartain, et al., 2017;

Scales et al., 2016).

Successful programming like HEROES contain key educational components that help the youth

understand themselves and others in a more positive fashion. The program emphasizes constructive use

of time and community engagement, a commitment to learning, positive values such as caring for others

and responsibility, interpersonal and intrapersonal competence, and positive views of self, which have all

been found to reduce risk oriented behaviour. These outcomes were noted in Roehlkepartain, et al.'s

research, which demonstrated youth with higher developmental assets had a decreased engagement in

tobacco, alcohol, other drugs, violence, and early sexual involvement. Likewise, youth with high

developmental assets were more likely to be successful academically, have stronger interpersonal

strengths and value diversity, aid others and were successful in overcoming adversity. These authors

underscore that positive relationships with youth and program leaders/educators were the cornerstone

of social emotional strength development (2017).

The aforementioned programming elements found within HEROES have been clearly linked to

resilience or the ability to flourish despite past adverse experiences (Donnon & Hammond, 2017). They

provide the key positive experiences that aid youth by providing "a powerful health promoting step with

lifelong benefits including potential improvements in school, employment, and pro-social outcomes–as

well as a possible 'equalizer' in socioeconomic differences" (Kahnlou & Ray 2014, pg. 65). By emphasizing

the youth's strengths and ability to adapt and connect with others, experiential programming modifies

vulnerabilities via the youth's change in focus from the negative to the positive. Effective programing like

HEROES, directs teaching, connection, and supports in order to help the youth to develop a positive

self-concept as well as promotes positive experiences with key leaders, teachers and community leaders,

which aids in the development of emotional regulation as these individuals are seen as providing safety.

Furthermore, experiential learning like that provided by the HEROES program supports the youth so that they develop their social understandings and behaviour as a result of the positive interactions they experience in key social systems, such as with peers or within the school. Not surprisingly, when programs work to engage the family, school and community to positively and redemptively work with the youth, it increases the ability of the youth to thrive if values such as fairness, social justice and mutual respect are experienced. These types of experiences teach the youth to use these values in turn when interpreting situations thereby allowing them to react to the situation in a prosocial fashion (Kahnlou & Ray, 2014).

As previously mentioned, Positive dose effects (PDE) are connected to resilient outcomes, indicating that either longer programming is necessary or conversely, programming take on a multi-domain approach that modifies social environments, such as the family, community and school.   Modifying the systems that interact with the youth provides continuity of care, which increases the likelihood that the youth will continue to be related to in a positive fashion and reinforced long after the completion of programming (Hawkins et al., 2005; Kahnlou & Wray, 2014). The HEROES program provides programming that is multidomain oriented and as a result is more effective at modifying past aversive experiences due to its impacts on the neuroplasticity of the youth, as the brain reorganizes based on the repetitive positive experiences.

Programmatic components for neurological change

The HEROES program would benefit from the addition of key educational components directed at calming the presence of dysregulated emotions that may be found in some students due to the impacts of ACEs.   It is important to reiterate that is the decreases in physiological stress responses that facilitate the youth's ability to use higher cognitive functions in learning environments, promoting the ability to consolidate the learning into memory (Dorado et al., 2019; Perry 2009; Richards, 2016). Emotional regulation strategies recommended by Perry (2009), start with teaching patterned activities that

decrease stress responses, such as deep breathing, activities that involve physicality and the arts, or

mindfulness as these activates will lessen possible stress responses that may be triggered by topics,

words, sounds and so on. By engaging youth in activities that engage multiple senses, stress reactions

over time are lessened promoting feelings of safety for the youth in the class thereby improving

emotional regulation and impulsivity (2009; Richards et al, 2016). Leitch (2017) recommends that

program facilitators work to create activities that follow: "a rhythm of calming and activating questions

throughout the process: ask a few questions that generate Parasympathetic calming followed by a

couple of questions that might be activating, followed by calming question "(pg. 5)

   This is important as using Leitch's technique will allow overtime for teachers and mentors to

begin to recognize stress responses in the youth, such as rapid breathing and as a result, will

know when to engage in calming activities or questions. Most importantly, these activities

should teach the youth how to self-regulate on their own so that they can identify their stress

responses and engage in self-regulatory activities across a wide array of settings (Leitch, 2017).

Research has found that the intentional use of these techniques in programming facilitates the

ability to support the acquisition and use of knowledge that is connected to more intra and interpersonal

understanding (Dorado, et al., 2016; Perry, 2009). Leitch (2017) notes that education of

self-regulation skills where the youth engages in practice of these skills outside of programming

time facilitates gains in neuroplasticity and resilience as the brain becomes less reactive to

previous triggers.   By practicing and utilizing these calming skills youth then become aware of

their ability to control their emotional responses providing them a protective skill set that

begets feelings of mastery and increases in self-esteem.

   It should be emphasized here, that the positive engagement experiences with self, peers and

mentorship figures found within the HEROES program do work to enhance neuronal connections that

modify stress responses (Delima & Vimpani, 2011). Neurological positive experiences are defined as those that consist of inputs that are nurturing, surrounding enrichment experiences that are consistent and predictable, so that the individual learns to expect positives from others and their environments (e.g., Perry, 2006, 2009). Perry emphasizes the need for repetition of positive experiences as these function to regulate fear responses that direct youth who have experienced adverse situations to interpret situations that are ambiguous as threats (2006). The repetition of positive experiences can take the form of homework as seen in the HEROES program, which requires the application of programmatic learning to various domains in the youth's life. This works well within the HEROES' program as educators, families and communities are equipped to support the youth's development, further modifying stress responses and encouraging development of the neural networks of "bonding, attachment, social communication and affiliation" (Perry, 2009, 246). Thus, at the core of effective programming like HEROES is the recognition that healthy stabile, dependable relationships that are attuned to the youth's feelings, cognitions, and needs, support the healing of past adverse experiences by rewriting the youth's interpretation of internal and external environmental cues.

Consideration of culturally appropriate support systems

Given the importance of experiential learning, connecting to the systems and communities within which youth regularly interact, is a key component to supportive programming (i.e., Richards, 2016; Ungar, 2011). By connecting youth with culturally appropriate civic engagement opportunities Ungar has noted that programming can support youth at risk by promoting "natural alliances" that will continue on after the completion of programmatic components (Ungar, 2011, pg.1744). Experiences within the community help the youth gain a clearer understanding of the consequences of their action/inaction, allowing for the development of leadership skills, culturally appropriate coping skills and self-efficacy as they are able to connect their action with positive change (Richards et al., 2016). The HEROES program has key opportunities for youth to put into practice what they have learned in their most immediate

social realms.   I would encourage the inclusion of opportunities for civic engagement within a youth's

neighbourhoods, faith community or cultural community based on the developmental gains that may

arise.

It is recognized that creation of healthy alliances within the youth's natural communities may not

always be possible as Richard's et al., has noted that some youth may come from communities defined

by low levels of cohesion. However, ongoing programming that is multi-domain in its orientation also

creates community by facilitating the creation of bonds between the learners in the class as well as

between the learner and the teacher or facilitator. And as has been previously noted, the ability to

flourish is enhanced when common programming promotes the youths' ability to identify with one

another and a mentor or facilitator, supporting the development of safe place that is defined by a

common culture guided by standardized goals.

Consolidating program learning with self-understanding and future orientations

In addressing views of self that may be negatively biased, one programming element that supports

the development and retention of positive self-understanding involves encouraging youth to share their

life experience through story.   This element works to facilitate the creation of bonds with others in a safe

space through disclosure and empowers a youth and provides them feelings of agency, as they choose

what life experiences they want to disclose and what they would prefer to keep private. (Jaramillio, al.,

2019). Similar positive outcomes are increases to self-efficacy/esteem as the youth is able to share

knowledge they have gained throughout their life in an authentic manner and gain feedback and support

from peers and the facilitator (2019). These types of activities are important for youth who have

experienced ACEs as it can be difficult for them to make meaning out of past negative events in a

positive manner. The HEROES program uses story regularly throughout its modules both as teaching

examples but also through the encouragement of participant's speaking to their experiences.   This is a

strong component of the program as it allows the youth to connect the teaching directly to their

understanding of their identity.

An additional storied component the HEROES program might consider is activities that encourage the

youth to think through the story they would tell about their lives and forecast how their future life will

unfold. Appropriate facilitation of the retelling of the life story would provide youth positively oriented

story prompts so that they can gain the understanding that they are not defined by negative past events.

Instead, through meaning making activities they can come to see themselves from the strengths they

have gained across their lived experiences (McAdams, 1993; Sanderson et al., 2016). Programming that

recognizes that youth are not *problems to be solved* but instead ask the question what has happened to

you can facilitate the youth in making adaptive changes in their view of the past difficulties (Dorado et

al., 2016). Narrative activities work to provide youth a meaningful way to use their voice to define their

life course, to choose their strengths and to feel empowered to achieve growth and well-being (Dorado,

et al., 2016).

These types of narrative interactions provide a forum for the facilitator and peers to support the

youth in their use of the "heroic voice," so that they recognize and use their strengths and skills in their

understanding of lived experience (Sanderson & McKeough, 2005). It is important in this context to

avoid a focus on the negative but instead on the strengths that the youth has adaptively developed

through life experience (Leitch, 2017). Interactions in narration activities work best in supportive

programming as facilitators can encourage the youth cognitively reframe negative explanations of self

and ways of being when recounting their stories. As a result, the program facilitators supports will work

to challenge the youth to engage in beneficial meaning making of past experiences providing the

guidance necessary to create a more redemptive future storyline. Specifically, youth are guided to

express an understanding of the strengths they have gained and how these strengths can be leveraged as

skill sets to guide their future choices for relationships, civic engagement, education and career

(Sanderson et al., 2016). Moreover, key relationships within programming that scaffold cognitive

reframing of negative interpretations of self, work to alter the youth's self-schema so that it consolidates

understandings of positive self-attributes and abilities. This is notable as positive self-schema elements

are connected to feelings of worthiness, success, self-efficacy, and trust, which encourages life

satisfaction as well as feelings of self-worth, optimism, and trust (Tomlinson et al., 2017).

Teaching through cognitive reframing also encourages the youth to perceive the good that has

come about, or has stemmed from, enduring or experiencing the negative. In other words, they are able

to conceive of the mechanisms that resulted in the negative life experience being "redeemed" through

its contributions to growth, personal transformation or improvement. It is important to recognize that

the application of a redemptive storyline within one's narrative does not negate the power of the

negative or traumatic experience, rather it redeems the experience (McAdams, 1993; 2006). Redemptive

story lines found within individual life histories have been found to be clearly related to posttraumatic

growth as they result in cognitive appraisals of self that increase self-efficacy, strength, confidence and

self-understanding (McAdams, et al., 2001). Redemptive individuals are characterized as being

ego-resilient; experiencing higher levels of well-being and satisfaction with their lives as they are able to

adapt to difficulties and find ways to restore positive affect (Pals, 2006a). Given these findings, it is

suggested that life history narrative activities be included in the HEROES curriculum to support beneficial

meaning making of past experiences and the forecasted future.

Conclusion

The HEROES program has been recognized as a successful program due to its demonstrated ability to

support youth from a variety of backgrounds and risk levels, recognize their unique internal and external

strengths and use these strengths successfully to surmount challenges, a key aspect in the ability to

thrive.   It is a holistic program that is multidomain in orientation, providing students with positive role

models, positive social connection with peers, family, and educational realms as well as regular

opportunities for application of the HEROES curriculum to real life situations.   Research has supported

the contention that the design of the HEROES program is effective for promotion of the development of

life skills and well-being in youth including youth who are at risk due to previous negative experiences.

Three suggested additions to the curriculum, have been proposed to support youth who have

experienced adverse life events include: the inclusion of activities to calm dysregulation in youth,

culturally relevant settings for learning application to encourage gains in social capital, and the addition

of narrative based activities to support making meaning of past events in a manner that promotes

well-being and post traumatic growth.

References

Tracie O. Afifi, Harriet L. MacMillan, Michael Boyle, Tamara Taillieu, Kristene Cheung, Jitender Sareen

    CMAJ Jun 2014, 186 (9) E324-E332; DOI: 10.1503/cmaj.131792

Bernard, D.L., Calhoun, C.D., Banks, D.E. *et al.* Making the "C-ACE" for a Culturally-Informed Adverse

    Childhood Experiences Framework to Understand the Pervasive Mental Health Impact of Racism

    on Black Youth. *Journ Child Adol Trauma* **14,** 233–247 (2021). https://doi.org/10.1007/s40653-

    020-00319-9

Bethell C, Jones J, Gombojav N, Linkenbach J, Sege R. Positive Childhood Experiences and Adult Mental

    and Relational Health in a Statewide Sample: Associations Across Adverse Childhood

    Experiences Levels. *JAMA Pediatric.* 2019;173(11):e193007.

    doi:10.1001/jamapediatrics.2019.3007

Canadian Community Health Survey: Mental Health and Well-Being Derived Variable (DV) Specifications.

    Ottawa (ON): Statistics Canada; 2013.

Cherry, K.M., McArthur, B.A. & Lumley, M.N. (2020). A Multi-Informant Study of Strengths, Positive Self-

    Schemas and Subjective Well-Being from Childhood to Adolescence. *Journal of Happiness Study*

    21, 2169–2191. https://doi.org/10.1007/s10902-019-00171-1

Delima, J., & Vimpani, G. (2011). The neurobiological effects of childhood maltreatment: An often

    overlooked narrative related to the long-term effects of early childhood trauma? *Family*

    Matters, (89), 42–52. https://search.informit.org/doi/10.3316/informit.717010661945019

Dorado, J.S., Martinez, M., McArthur, L.E. *et al.* (2016) Healthy Environments and Response to Trauma

Schools (HEARTS): A Whole-School, Multi-level, Prevention and Intervention Program for

Creating Trauma-Informed, Safe and Supportive Schools. *School Mental Health* **8,** 163–176

(2016). https://doi.org/10.1007/s12310-016-9177-0

Donnon, T. & Hammond, W. Understanding the relationship between resiliency and bullying in

adolescence: An assessment of youth resiliency from five urban high schools. *Child and*

Adolescent Clinics of North America. 2007;16(2):449-471.

Evans, G. W., Li, D., & Whipple, S. S. (2013). Cumulative risk and child development. *Psychological*

bulletin, *139*(6), 1342–1396. https://doi.org/10.1037/a0031808

Hawkins, J. D., Kosterman, R., Catalano, R. F., Hill, K. G., & Abbott, R. D. (2005). Promoting positive

Social Development Project. *Archives of pediatrics & adolescent medicine*, *159*(1), 25–31.

https://doi.org/10.1001/archpedi.159.1.25

Jaramillo, R.F., Scott, J.C., Johnson, K.C. & Martin, M. (2019). Drawing Understanding: Utilizing Narrative-

Based Practices to Cultivate Humanizing Relationships Between Educators and Students Who

are Refugees, Research in Human Development, 16:3-4, 226-245, DOI:

10.1080/15427609.2019.1710993

Johnson D, Policelli J, Li M, et al. Associations of Early-Life Threat and Deprivation With Executive

Functioning in Childhood and Adolescence: A Systematic Review and Meta-analysis. *JAMA*

Pediatr. Published online July 26, 2021. doi:10.1001/jamapediatrics.2021.2511

Joshi D, Raina P, Tonmyr L, MacMillan HL, & Gonzalez A. (2021). Prevalence of adverse childhood

experiences among individuals aged 45 to 85 years: a cross-sectional analysis of the Canadian

Longitudinal Study on   Aging. *CMAJ* Open.9 (1):E158-E166. DOI: 10.9778/cmajo.20200064.

Khanlou, N., & Wray, R. (2014). A Whole Community Approach toward Child and Youth Resilience

Promotion: A Review of Resilience Literature. *International journal of mental health and*

addiction, *12*(1), 64–79. https://doi.org/10.1007/s11469-013-9470-1

Leitch, L. Action steps using ACEs and trauma-informed care: a resilience model. *Health Justice* **5,** 5

(2017). https://doi.org/10.1186/s40352-017-0050-5

McAdams, D. P. (1993). *The stories we live by: Personal myths and the making of the self.* New

York: William Morrow and Company, Inc.

McAdams, D. P., Reynolds, J., Lewis, M., Patten, A. H., & Bowman, P. J. (2001). When Bad Things Turn

Good and Good Things Turn Bad: Sequences of Redemption and Contamination in Life Narrative

and their Relation to Psychosocial Adaptation in Midlife Adults and in Students. *Personality and*

Social Psychology Bulletin, *27*(4), 474–485. https://doi.org/10.1177/0146167201274008

McDonald, S., Kingston, D., Bayrampour, H., & Tough, S. (2015). Adverse Childhood Experiences in

Alberta, Canada: a population based study. *Medical Research Archives,* (3). Retrieved from

https://esmed.org/MRA/mra/article/view/142

National Scientific Council on the Developing Child (2015). *Supportive Relationships and Active Skill-*

Building Strengthen the Foundations of Resilience: Working Paper No. 13. Retrieved from

www.developingchild.harvard.edu.

National Scientific Council on the Developing Child (2005/2014). *Excessive Stress Disrupts the*

Architecture of the Developing Brain: Working Paper No. 3. Updated Edition. Retrieved from

www.developingchild.harvard.edu.

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Carsley S, & Oei T. (2020)

Interventions to prevent and mitigate the impact of adverse childhood experiences (ACEs) in

Canada: a literature review. Toronto, ON: Queen's Printer for Ontario; 2020.

Pals, J. (2006a). Constructing the "springboard effect": Causal connections, self-making, and

growth within the life story. In D.P. McAdams, R. Josselson, & A. Lieblich (Eds.), *Identity   and*

story: Creating self in narrative. (pp. 175-199).

Perry, B.D. (2001) The neuroarcheology of childhood maltreatment: the neurodevelopmental costs of

adverse childhood events. In: The Cost of Maltreatment: Who Pays? We All Do. (Eds., K. Franey,

R. Geffner & R. Falconer), Family Violence and Sexual Assault Institute, San Diego, pp. 15-37,

2001

Perry, B.D. (2006) The Neurosequential Model of Therapeutics: Applying principles of neuroscience to

clinical work with traumatized and maltreated children In: Working with Traumatized Youth in   Child

Welfare (Ed. Nancy Boyd Webb), The Guilford Press, New York, NY, pp. 27-52

Perry, B. D. (2009). Examining child maltreatment through a neurodevelopmental lens: Clinical

applications of the neurosequential model of therapeutics. *Journal of Loss and Trauma, 14*(4),

240–255. https://doi.org/10.1080/15325020903004350

Richards, M., Romero, E., Deane, K., Carey, D., Zakaryan, A., Quimby, D., Gross, I., Thomas, A., Velsor-

Friedrich, B., Burns, M., & Patel, N. (2016). Civic engagement curriculum: A strengths-based

intervention serving African American youth in a context of toxic stress. *Journal of Child &*

Adolescent Trauma, 9(1), 81–93. https://doi.org/10.1007/s40653-015-0062-z

Roehlkepartain, E. C., Pekel, K., Syvertsen, A. K., Sethi, J., Sullivan, T. K., & Scales, P. C. (2017).

Relationships First: Creating Connections that Help Young People Thrive. Minneapolis, MN:

Search Institute. https://www.search-institute.org/our-research/development-

assets/developmental-assets-framework/

Sanderson, A. & McKeough, A. (2005). A Narrative Analysis of Behaviourally Troubled Adolescents' Life

Stories. (2005). *Narrative Inquiry 15* (1) (pp. 127- 160)*.*

Sanderson, A., McKeough, A., Malcolm, J., Omstead, D., Davis, L. & Thorne, K (2016) The Life Stories of

Troubled and Non-Troubled Youth: Content and Meaning Making *North American Journal of Psychology (18)* 3, p. 439-464.

Scales, P. C., Benson, P. L., Oesterle, S., Hill, K. G., Hawkins, J. D., & Pashak, T. J. (2015). The dimensions

of successful young adult development: A conceptual and measurement framework. *Applied*

developmental science, *20*(3), 150–174. https://doi.org/10.1080/10888691.2015.1082429

Sperry, D. M., & Widom, C. S. (2013). Child abuse and neglect, social support, and psychopathology in

adulthood: a prospective investigation. *Child abuse & neglect*, *37*(6), 415–425.

https://doi.org/10.1016/j.chiabu.2013.02.006

Srivastav, A., Strompolis, M., Moseley, A., & Daniels, K. (2020). The Empower Action Model: A

Framework for Preventing Adverse Childhood Experiences by Promoting Health, Equity, and

Well-Being Across the Life Span. Health Promotion Practice, 21(4), 525–534.

https://doi.org/10.1177/1524839919889355

Tomlinson, R. M., Keyfitz, L., Rawana, J. S., & Lumley, M. N. (2017). Unique contributions of positive

Schemas for understanding child and adolescent life satisfaction and happiness. *Journal of*

Happiness Studies, 18(5), 1255–1274. https ://doi.org/10.1007/s1090 2-016-9776-3.

Winer, A. C., & Thompson, R. A. (2013). How poverty and depression impact a child's social and

emotional competence. Center for Poverty Research, University of California-Davis. Available at

<https://poverty.ucdavis.edu/policy-brief/how-poverty-and-depression-impact-childs-social-

and-emotional-competence>