Foundations of Caregiver Support: Models of Care

Literature Review
Final Report

Submitted to
Foundations of Caregiver Support Steering Committee

By
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and
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Executive summary

Foundation of Caregiver Support (FCS) (2015) provides a "base from which to develop caregivers' capacity to improve positive outcomes for infants, children and youth" (p. 4). This report is developed based on feedback from authors of the FCS (2015) document and representatives from the division of Child and Youth Services in the Ministry of Human Services to build off of the foundation and identify resources that support child intervention practice.

The purpose of this project is to identify and describe evidence on leading and promising models of care that use trauma informed approaches including the pillars of knowledge and practice described in the FCS (2015) document: child development, trauma, and loss and grief. The following five models of care were found to be explicitly informed by the evidence related to the inclusion criteria:

- ARC (Attachment, Self-Regulation, and Competency)
- Trauma Systems Therapy
- Sanctuary Model
- Neurosequential Model of Therapeutics (NMT)[1]
- CARE (Child-Adult Relationship Enhancement)

This report provides:

- Descriptions of each of the five models of care;
- An overview of the evidence related to each of these models; and,
- High level details on costing for each of the models.

The five models of care represent only the care models that met the criteria for inclusion developed by PolicyWise in consultation with stakeholders. The elements of these models illustrate criteria for consideration when providing services that use a trauma-informed lens. While these models are considered to be among emerging, promising, or leading practices, the results described in the report are based on implementation in different locations in North America and may not represent the actual results achieved when applying them in the context of Alberta. The models included are a limited sub-set of evidence-informed services and supports that may be provided to families by Alberta Children's Services under the Child Youth and Family Enhancement Act.

The information provided in the report will inform Child and Youth Services procurement and tendering process and ensure future contracted programs and services demonstrate the use of evidence-informed, trauma-informed models of care.

[1] The NMT model did not meet the criterion of reflecting the "milieu" approach as descriptions of it in the literature are strongly focused on clinical practice. It was included as an exception because of awareness that applications to non-clinical settings are being explored. If it is selected as a model it is recommended that it be used in conjunction with other treatments or interventions that reflect the milieu approach.

Introduction

Approach

The initial intent for this project was to conduct a rapid review[2] of the literature; however, it was necessary to adapt the approach given the lack of published literature related to models of care. This reflects the fact that the state of the evidence on these models is still evolving. The adapted approach is a synthesis of published and grey literature using a thematic organizing framework to compare information across the models of care that met the inclusion criteria.

Inclusion Criteria

The thematic organizing framework included the following definitions:

- **Model of care**: 24 hour care of children by a Minister designated director under Child Welfare legislation. This includes residential treatment (i.e., therapeutic campus based care, group care, and foster and kin care).

- **Trauma-informed care**: Reflects a systematic or organizational commitment to strengths based practices informed by a trauma sensitive lens.

- **Milieu approach:** A milieu approach to trauma-informed care takes into consideration the "unique social environment of youth" (Brown, McCauley, Navalta & Saxe, 2013, p. 694) and includes a focus on characteristics of the practice model while being inclusive of clinical services.

Models that reflected the milieu approach were prioritized as they are the most applicable to the bed based care program delivered in Alberta. Children in bed based care often have cumulative trauma, loss, and grief experiences. The milieu approach provides an appropriate range of models which have transferable elements that may be applied throughout the child's transition through care to maintain consistency.

Models of Care

This report provides an overview of five models of care that target infants, children, youth and families and caregivers and are explicitly informed by the evidence related to the inclusion criteria (Appendix A – Search strategy).

Initially a cursory review of grey and peer reviewed literature was conducted and resulted in the identification of 22 models of care. The thematic organizing framework was used to filter the information gathered during the initial review. This process resulted in the following five models being identified for a second and more in-depth review of literature:

- ARC (Attachment, Self-Regulation, and Competency)
- Trauma Systems Therapy
- Sanctuary Model

[2] Rapid review is an assessment of what is known of a policy or practice issue using systematic review methods and critical appraisal to existing research (adapted from Grant and Booth (2009).

- Neurosequential Model of Therapeutics (NMT)[3]
- CARE (Child-Adult Relationship Enhancement)

The above models of care were chosen for in-depth review because, to varying degrees, they met the definition of "model of care" and each model was found to use elements of trauma informed practices which were supported by empirical evidence. Furthermore, each of the models included in this report illustrates approaches to practice that respect individual experiences, individual expressions of grief and loss and are designed to avoid further traumatizing infants, children and youth.

The five models of care represent only the care models that met the criteria for inclusion developed by PolicyWise in consultation with stakeholders. The elements of these models illustrate criteria for consideration when providing services that use a trauma-informed lens. While these models are considered to be among emerging, promising, or leading practices, the results described in the report are based on implementation in different locations in North America and may not represent the actual results achieved when applying them in the context of Alberta. The models included are a limited sub-set of evidence-informed services and supports that may be provided to families by Alberta Children's Services under the Child Youth and Family Enhancement Act.

The findings are presented in three sections; (1) program review, (2) evidence review, and (3) costing review.

Definitions That Guide This Review

The intersections between child development, loss and grief, and traumatic experiences result in children who face varied complexities when entering bed based care. Caregivers need to be aware of these factors in order to provide individualized care that adheres to leading principles and is consistent across the care continuum. The way in which we define key terms determines what we find in the literature and consequently what we are able to learn and how we practice.

What We Know

The following information was informed by the literature and by knowledge and experiences of members of the Foundations of Caregiver Support Steering Committee (2015) which provide the following guiding definitions for the pillars of knowledge and practice:

Child development

- The development of an infant, child or youth is impacted by both nature and nurture; that is, the interactions of genes and experience shape the developing brain.
- A caregiver's ability to respond to the needs of children in a developmentally appropriate manner is critical to their well-being.

[3] The NMT model did not meet the criterion of reflecting the "milieu" approach as descriptions of it in the literature are strongly focused on clinical practice. It was included as an exception because of awareness that applications to non-clinical settings are being explored. If it is selected as a model it is recommended that it be used in conjunction with other treatments or interventions that reflect the milieu approach.

- Knowledge of age-stage appropriate developmental expectations will enable caregivers to interact with and provide experiences for children of all ages and therefore promote healthy attachments, physical and intellectual development, and social and emotional health.
- Abuse or neglect, absence of responsive caregiving, chronically unreliable or inappropriate caregiving can alter the formation of the brain's architecture and can lead to disparities in learning, behavior and development in children.

"Caregiver/s will provide responsive caregiving and respond to the needs of children in a developmentally appropriate manner which is critical to their well-being and promotes their healthy growth and development. Caregiving, support, and child-specific documentation (i.e. service plans) will be individualized to the unique developmental needs of each infant/child/youth".

Child and Family Services Foundations of Caregiver Procurement Working Group, 2016, p. 9

Trauma

- Trauma occurs as the result of an intensive experience that threatens the safety or security of an infant, child or youth. Trauma may also result from prenatal stress.
- Trauma impairs the child's ability to trust and relate to others.
- Caregivers who are trauma informed have a different perception and response to the child's behaviour.
- By supporting caregivers to recognize trauma and to react appropriately to behaviours, the infant, child or youth is assisted with increased stability and opportunity for healthy social and emotional development.

"Caregiver/s will be **trauma-informed** by being able to recognize trauma, understand the impact of complex trauma experiences on child/youth behavior and growth, react appropriately to behaviors, provide care and support through a trauma sensitive lens, and establish a positive, safe, stable, and consistent caregiving environment. Caregiving, support, and child-specific documentation (i.e. service plans) will use a trauma-informed approach individualized to the unique needs of each child/youth".

Child and Family Services Foundations of Caregiver Procurement Working Group, 2016, p .9

Loss and grief

- Loss is produced by an event which is perceived to be negative by the individuals involved and results in long-term changes to one's social situations, relationships, or thinking.
- Of significant importance is the level of trauma associated with the loss, and the child's previous experiences and developmental capacity.

- Grief is a normal response to loss; it is described as a "pattern of psychological and physiologic responses a person experiences after a loss of a valued person, object, belief, or relationship" (Family Caregivers Online, 2016); it is the means for healing.
- Sensitive and informed caregivers can support infants, children and youth as they progress though the grieving process by understanding and perceiving the child's needs based on their development and experiences.

> "Caregiver/s will understand the grieving processes in childhood and adolescence and provide informed care and support to infants, children and youth as they progress through the grieving process by understanding and perceiving the child's needs based on their development and experiences".
>
> *Child and Family Services Foundations of Caregiver Procurement Working Group, 2016, p. 9*

What We Know From Reviewing the Literature

The Foundations of Caregiver Support (2015) guided and informed the literature review and highlights the extensive interest in comprehensively defining key concepts in this field. The information generated from the review contributes to understanding how these concepts are evolving in other contexts and will inform interpretations of the pillars of knowledge and practice described in FCS (2015).

Child development

Significant contributions have been made in recent years regarding what derails or contributes to healthy child development and what can be done to maintain it (Centre on the Developing Child, 2016; Children's Bureau, 2015).

Core concepts established by the Center on the Developing Child (2016, p. 1) include:

- Relationships with caring, responsive adults and early positive experiences build strong brain architecture for children.
- Significant stress from ongoing hardship or threat (e.g. exposure to violence, extreme poverty, or maltreatment) disrupts the biological foundations of learning, behavior, and health, with lifelong consequences.
- Providing the right ingredients for healthy development from the start —including protective factors that can counterbalance the effects of adversity—produces better outcomes than trying to fix problems later.

Trauma

The recognition of trauma and the nuances between types has become more advanced in recent years, moving towards understanding of trauma as an individual issue to a public issue affecting communities, cultures, service providers and organizations (MTIEC, 2016).

Important distinctions for discussing trauma include:

- "A ***traumatic event*** involves a single experience, or enduring repeated or multiple experiences that completely overwhelm the individual's ability to cope or integrate the ideas and emotions involved in that experience" (MTIEC, 2013, p. 9). Traumatic events are unexpected and beyond the person's control.
- ***Trauma*** is described as the "emotional wound" (Webb, 2006, p. 14) caused by traumatic experiences. Whether or not an experience is traumatic is determined by the individual's response; their response is determined by many factors (e.g., source of the trauma, personal history, social relationships, and social environments).
- ***Trauma-informed care*** is strengths based and informed by an understanding that trauma arises from experiences. As such, the question that guides practice shifts from "what's wrong with you" to "what happened to you" (MTIEC, 2013, p. 16). Trauma-informed care reflects a system and organization commitment and is supported by systems and organizational principles and policies.

Loss and grief

As with the concepts for child development and trauma, the concepts of loss and grief have been discussed and explored across many disciplines for several decades. Definitions of loss and grief are consistent:

- ***Loss*** is experienced as a result of parting with something; a person, pet, object, belief, relationship.
- ***Grief*** is a normal response to loss; it is described as a "pattern of psychological and physiologic responses a person experiences after a loss" (Family Caregivers Online, 2016).

The way in which an individual experiences loss and grief is unique and determined by their pervious experiences, social connection, and social setting (Family Caregivers Online, 2016; Webb, 2006). The process of grief can transition to trauma when the loss is a result of homicide or other form of violence, including suicide. The retelling of this loss by numerous sources can heighten the distress (MTIEC, 2016).

Models of Caregiver Support

Element Review

Through the review of the grey and peer reviewed literature published on each of the five models of care, information was identified that was unique to each model as well as common elements across the models. Two elements targeted during the rapid review were whether the different models of care were trauma informed and culturally competent (Lum, 1999; 2011).

Hopper, Bassuk, and Olivet's (2010) identified four criteria (trauma awareness, emphasis on safety, rebuild control, strengths based) that are common elements of trauma informed services and care providers. These four criteria were used to determine whether the five models of care were trauma informed and, if so, to what extent (see Table 1).

In addition to these elements, considerations of culture are foundational to meeting the needs of diverse populations. There is no one definition of culture; however, there is general consensus that it refers to the "customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation (Guiso, Sapineza, Zingales, 2006) that guide a social groups' ways of thinking, being, and doing. Acknowledging that an individual's cultural aptitude is generally limited to their own culture, Lum (1999; 2011) developed a cultural competency framework to help service providers identify, measure, and diversify their level of cultural competency. What is important for the purpose of this report is that the framework distinguishes between two levels of cultural competency (generalist and advanced) which are comprised of three criteria (cultural self-awareness, knowledge acquisition, skill development). The three criteria and two levels of competency were used to determine whether the five models of care incorporate practices to help develop service providers level of cultural competency to better serve culturally diverse clients and, if so, to what extent (see Table 2).

Summary of Findings: Trauma

The elements of trauma awareness, emphasis on safety, and a strengths-based approach emerged as leading elements among trauma informed models of care. Key principles of these elements were clearly stated in empirical and supporting documents for the models. Although the "rebuild control" element was not clearly supported by the literature, it may be an important factor to consider when transition planning.

Table 1: Trauma Element Review

Trauma Informed Element	Key Principles	Model of Care
Trauma Awareness (TA)	• Trauma informed care providers and services incorporate an understanding of trauma into their work and practices • Embedded in program philosophy and mission • Involves staff education, training and consultation • Recognition of vicarious trauma and staff self-care	• ARC • Trauma Systems Therapy • Sanctuary Model • NMT • CARE
Emphasis on Safety (ES)	• Work towards building physical and emotional safety for client and providers • Relationships are authentic, respectful and have clear boundaries • Avoid re-living trauma -'Do no harm' ○ Policies and procedures are in place for use of restrictive measures and isolation with an emphasis on aftercare to return to a state of safety	• Trauma Systems Therapy • Sanctuary Model

Trauma Informed Element	Key Principles	Model of Care
Rebuild Control (RC)	• Emphasize the importance of choice for consumers • Create predictable environments that allow clients to rebuild a sense of efficacy and personal control over their lives. • Client is involved in service development and evaluation	• None of the models explicitly addressed this
Strengths-Based (SB)	• Rather than being deficit-oriented, service settings assist clients to identify their own strengths and develop coping skills. • Focus on the future and utilize skills building to further develop resiliency	• Trauma Systems Therapy

Summary of Findings: Cultural Competency

While each of the five models of care were found to explicitly incorporate different elements of trauma informed care, the literature did not explicitly illustrate how or to what extent the models of care incorporate elements of cultural competency. What could be gleaned from the literature is that the models of care employ a universal approach that is based upon Western-based concepts and theories that have been adapted to accommodate diverse social groups. As with trauma, it may be important to consider using a tool such as Lum's (1999; 2011) cultural competency framework when transition planning to ensure that a model of care and the service providers provide clients with culturally competent services and programs.

Table 2: Cultural Competency Element Review

Cultural Competence	Key Principles	Model of Care

Cultural Competency Generalist (CCG)	• Cultural Awareness:
	  ○ Awareness of own life experience related to culture.
	  ○ Contact with other cultures and ethnicities.
	  ○ Awareness of positive and negative experiences with other cultures and ethnicities.
	  ○ Awareness of own racism, prejudice, and discrimination.
	• Knowledge Acquisition:
	  ○ Understanding of terms related to cultural diversity.
	  ○ Knowledge of demographics of culturally diverse populations.
		• ARC
		• Trauma Systems Therapy
		• Sanctuary Model
		• CARE
		• NMT

Cultural Competence	Key Principles	Model of Care
	○ Development of critical thinking perspective on cultural diversity. ○ Understanding of the history of oppression and of social norms. ○ Knowledge of culturally diverse values. • Skill Development: ○ Understanding of how to overcome client resistance. ○ Knowledge of how to obtain client background. ○ Understanding of the concept of ethnic community. ○ Use of self-disclosure. ○ Use of positive and open communication style. ○ Problem identification. ○ View of the problem in terms of wants and needs. ○ View of the problem in terms of levels. ○ Explanation of problem themes. ○ Identification of problem details. ○ Assessment of stressors and strengths. ○ Assessment of all client dimensions ○ Establishment of culturally acceptable goals. ○ Formulation of multilevel intervention strategies. ○ Evaluation.	
Cultural Competency Advanced Level (CCA)	• Cultural Awareness: ○ Assessment of involvement with people of color throughout various life stages. ○ Completion of coursework, fieldwork, and research focused on cultural diversity. ○ Participation in employment experiences with culturally diverse clients and programs. ○ Academic and employment evaluation on the progress toward attaining focused cultural awareness of academic material and professional career experiences with cultural diversity. • Knowledge Acquisition: ○ Knowledge of theories that assist with the	• None of the models explicitly practiced this level of cultural competency

Cultural Competence	Key Principles	Model of Care
	identification and examination of embedded ways of thinking and behaving that limit individuals and society as a whole. ○ Mastery of social science theory • Skill Development: ○ Design social service programs in ethnic communities. ○ Understanding that services must be accessible. ○ Understanding that services must be pragmatic and positive. ○ Belief in the importance if recruiting bilingual/bicultural workers. ○ Participation in community outreach programs. ○ Establishment of linkages with other social agencies. ○ Foster a meaningful, beneficial, and inclusive agency setting. ○ Involvement with cultural skill development research.	

Program Review

Legend for Table 3: Program Review

In order to present information in a concise manner, the following abbreviations were used in the program review table to represent the different characteristics (type of model, elements of trauma informed services and care providers) of the five models of care.

Types of models:

- Prevention **(PR)**: Refers to a model of care that uses specific strategies to intervene prior to a trauma event to prevent it from occurring in the first place.
- Intervention **(IN)**: Refers to a model of care that uses specific strategies to intervene during a trauma event and to prevent further trauma.
- Postvention **(PO)**: Refers to a model of care the uses specific strategies to intervene after a traumatic event has taken place and to prevent further trauma.

Elements of trauma informed care:

- Trauma Awareness **(TA)**: Incorporate an understanding of trauma into their work.

- Emphasis on Safety **(ES)**: Build physical and emotional safety for clients and providers.
- Rebuild Control **(RC)**: importance of choice for clients and predictable environments.
- Strengths-Based **(SB)**: identify strengths and develop coping skills, and focus on the future and utilize skills building to further develop resiliency.

Developmentally Sensitive: **Yes** and **No**

Implementation:

- Milieu **(MI)**: A whole setting approach that includes focus on characteristics of the environment and the practice model (including clinical).
- Clinical **(CL)**: Requires a trained clinician and is an intensive and individualized approach to addressing the impact of a traumatic experience.
- Organizational **(OR)**: A systems wide shift in culture which fosters a trauma-informed environment for staff and clients.

It is important to note that this information presented in Table 2 is limited to what was explicitly stated in the documents that were included in this review and listed in the bibliography. An example of this is that loss and grief is a recognized component of trauma and in itself a separate process, yet none of the models explicitly addressed this in their documentation of practice. Therefore this information is not exhaustive and as such does not capture all of the nuanced details regarding each of the five models of care. Rather the information is meant to provide a high-level understanding of each model and to what extent they are trauma informed.

Summary of Findings

Preliminary analysis identified that the Trauma Systems Therapy (TA, ES, SB) and Sanctuary Model (TA, ES, SB) have the highest level of trauma informed practice and respectively incorporate three of the four elements that comprise trauma informed care and services.

Table 3: Program Review

Model of Care	Elements of Trauma Informed	Description	Key Principles	Target Population	Type of Model	Develop-mentally Sensitive	Implementation
ARC	TA	Uses attachment theory and early childhood development and addresses how a child's entire system of care can become trauma informed to better support trauma focused therapy.	-Attachment theory -Child development -Traumatic stress impact -Promote resilience	Children, youth, caregivers	IN	No	MI, OR
Trauma Systems Therapy	TA, ES, SB	Utilizes a comprehensive assessment process that identifies patterns of links between triggering stimuli in the child's environment which lead to dysregulated emotions and behaviors which are related to the child's history of trauma.	-Home and community based services with specific intervention protocols -Services advocacy to ensure basic needs are met -Emotional regulation skills training -Cognitive processing trauma narrative development and re-scripting with modules for both single incident and chronic trauma. -Psychopharmacology	Children, youth, young adults, caregivers	IN	No	MI, CL, OR
Sanctuary Model	TA, ES, SB	Uses community meetings, trauma-based psycho-educational groups, life story work, and trauma-informed staff working together with youths and families to develop effective social, affect management, and cognitive skills, to develop and implement safety	-Culture of nonviolence -Emotional intelligence Inquiry -Social learning -Shared governance -Open communication -Social responsibility	Children, adolescents, families.	IN	No	MI, OR

Model of Care	Elements of Trauma Informed	Description	Key Principles	Target Population	Type of Model	Develop-mentally Sensitive	Implementation
Sanctuary Model		plans for children in their homes and at the residential treatment center, and to reduce PTSD symptoms including aggressive and dangerous behaviors that necessitated residential placement.	-Growth and Change.				
Neuro-sequential Model of Therapeutics	TA	Is not a specific therapeutic technique; it is assessment designed to guide clinical problem solving and outcome monitoring by providing a useful "picture" of the client's current strengths and vulnerabilities in context of their developmental history. In turn, allowing the clinical team to select and sequence a set of interventions to best meet the needs of the client.	-Use a neurodevelopmental assessment. -Assessment informs therapeutic techniques/plan. -Developmentally informed. -Trauma sensitive. -Positive relational interactions.	Children, caseworkers, caregivers, clinicians	IN	Yes	CL
CARE	TA	For general usage by non-clinical adults who interact with traumatized children and their caregivers within various milieu settings. CARE utilizes the three P skills (Praise, Paraphrase and Point-out-Behavior) to connect with children and their caregivers, provide a set of techniques for giving children and their caregivers effective positive commands, and the use of selective ignoring techniques to redirect problematic behaviors.	Three P skills: -Praise. -Paraphrase. -Point-out-Behavior.	Children, caregivers	IN	No	MI

Evidence Review

For the purpose of this project adapted definitions of levels of evidence (Scott et al., 2014) provided below, were used to guide assessment of the five models of care.

Legend for Table 4: Evidence Review

In order to present information in a concise manner, the following abbreviations were used in the evidence review table to represent the type of model, elements of trauma informed services and care providers of the five models of care.

The levels of evidence are:

- Leading Practices **(LD)**: refers to practices that have been implemented in multiple settings outside of the original setting and there is high quality evidence "that has evaluated the practice with results consistently demonstrating a positive impact on … outcomes and/or … system performance".
- Promising Practice **(PR)**: refers to practices that have been implemented in at least one setting outside of the original setting and there is preliminary evidence that has evaluated the practice with results consistently demonstrating a positive impact on outcomes and/or system performance.
- Emerging Practice **(EM)**: refers to practices that have been implemented in one setting and there is information obtained from personal accounts, informal observations, and/or ongoing evaluation that suggests that the practice can have a positive impact on outcomes and/or system performance.

It is important to note that information presented in Table 3 is limited to what was explicitly stated in the documents that were included in the rapid review and listed in the bibliography. Therefore this information is not exhaustive and as such does not capture all of the nuanced details regarding each of the five models of care. Rather the information is meant to provide a high-level understanding of the evidence that supports each model of care.

Summary of Findings

The findings reveal a gap between the questions being asked in evidence based research and those being asked in practice. None of the models had evidence of substantial quality or quantity to be classified as a leading practice. Three of the five models are Promising Practices, with the remaining two models being classified as Emerging Practices.

Table 4: Evidence Review

Model of Care	Recent Publications (2006-2016)	Target Group	Outcomes	Theoretical Framework	Study Designs	Level of Evidence	Description of Evidence
ARC	Yes	-Children -Caregivers	-Reductions in PTSD symptoms. -Reductions in externalizing and internalizing behaviours. -Reductions in use of restraints. -Improvements in child and caregiver functioning.	-Attachment theory -Trauma theory	-Naturalistic -Evaluation	PR	-Implemented outside of original setting. -Preliminary evidence has demonstrated positive impact on outcomes.
Trauma Systems Therapy	Yes	-Children -Adolescents	-Reductions in use of seclusion and restraints. -Improved emotional and behavioural regulations in children and adolescents.	-Bronfenbrenner's social-ecological Model	-Mixed-methods	PR	-Implemented outside of original setting. -Preliminary evidence has demonstrated positive impact on outcomes.
Sanctuary Model	Yes	-Youth -Staff -Indirect care staff	-Increase in community members helping and supporting each other. -Promotion of self-sufficiency and independence in decision making. -Increase in community members seeking to understand and express their feelings and personal problems. -Program environment promoted physical, social, and psychological safety for staff and	-Trauma and organizational change theory	-Participatory Action Research -Evaluation	PR	-Implemented outside of original setting. -Preliminary evidence has demonstrated positive impact on outcomes.

Model of Care	Recent Publications (2006-2016)	Target Group	Outcomes	Theoretical Framework	Study Designs	Level of Evidence	Description of Evidence
			Clients.				
Neuro-sequential Model of Therapeutics	Yes	-Children	-Improved social and emotional development. - Improved probability that high-risk and traumatized young children can transition into a regular classroom environment. - Decrease in challenging behaviors.	Neurodevelopment and traumatology	Quasi-experimental design	PR	-Implemented outside of original setting. -Preliminary evidence has demonstrated positive impact on outcomes.
CARE	Yes	Caregivers	-Reductions in use of restraints. -Reduction in behavioural incidents.	-Relationship enhancement or Child Directed Interaction (CDI) -Child behavior management or Parent Directed Interaction (PDI)	-Exploratory	EM	-Has been implemented in one setting and evaluation suggests positive impact on outcomes.

Costing Review

The purpose of this section is to explore the resource requirements for implementing the five models of care that are the focus of this review. Organizations are encouraged to consider the following general questions and specific cost categories when determining the costs associated with each model.

General Questions in Inform Costing Review:

1. Will model(s) be selected for organization-wide implementation, program specific implementation or both?
2. Is the organization ready for implementation of the model(s)?
    a. Does restructuring need to occur in order to implement the model?
    b. Will there need to be changes to internal processes (e.g., intake, referral) and facilities?
    c. Does the organization have the right staffing composition?
3. How will staff be trained?
    a. Will a trainer travel to Alberta or will staff need to travel out of province to receive training?
    b. Is there an opportunity to have someone in Alberta complete a train-the-trainer course to reduce long-term expenses?
    c. Will ongoing staff training and certification be required?
4. Is the model a good fit with the local context and with the population(s) being served?
    a. What will be required to adapt the model to specific rural and urban contexts?

Cost Categories

The following cost categories were program costs, personnel costs, and administration costs. As there is significant variance with each of the models in regards to these costs, some general key questions are presented for each category.

Program Costs

- Print or electronic resources/materials?
    - Per client? Fixed cost? License fee?
    - Local costs of copying/distributing/storage/management?
- Training for staff, supervisors, and management?
- Adaptation of materials for local context?
- Annual dues/membership fees?

Personnel Costs

- Team composition; are specialized professionals required to be on staff?
- Are there education minimums for staff to receive training/certification in the model?
- If using existing staff, are any activities displaced?

Administration Costs

- Who will oversee implementation management?
- Administrative costs of scheduling training, meetings, managing resources?
- Licensing for needed software?

Table 5: Considerations for Costing Review

Model of Care	Personnel	Program Costs		Administration Costs	
		Training/Consultation	Resources (Materials)	Time	Licensing
ARC	Unavailable	$15,0000-$30,0000 depending on extent of travel, number of training modules, and number of consultation "streams"	Unavailable	1 year implementation	Unavailable
Trauma Systems Therapy	- Skill-based psychotherapy - Home and community based therapy - Legal advocacy Psychopharmacology	Unavailable	$40 Book: Trauma Systems Therapy for Children and Teens	Unavailable	Unavailable
Sanctuary Model	To Be Completed	$65,0000	Unavailable	2.5 years of training and consultation	Unavailable
Neurosequential Model	1.) At least a master's degree in social sciences or equivalent (e.g., psychology, education, social work, nursing, OT/PT, etc.) (2.) A current license (e.g., LPC, LMFT, LMSW, etc.) or similar designation (if outside of US) (3.) Current practice working with children and families (4.) Participation in at least 1 NMT Case-based Staffing Series (10 sessions) – may be waived if key clinicians have attended a live CTA training.	Phase 1: $3000/person with 10+ participants Phase 2: $4500/person with 10+ participants	Metric tool tokens ($15-$35/token= 1 report) Access to meeting space with internet access, projector/screen and high quality speaker phone for live training	2 years	$2000/year/site annual maintenance enrollment
CARE	Unavailable	$100/person (3hr training) + costs of travel to Cincinnati OR $2000 a day for agency specific training with 6-20 participants.	Unavailable	One day of training	Unavailable

Conclusion

Based upon the approach used to conduct this review, five models of care were found to have met, to varying degrees, the inclusion criteria set-out in this document. The five models of care represent only the care models that met the criteria for inclusion developed by PolicyWise in consultation with stakeholders. The elements of these models illustrate criteria for consideration when providing services that use a trauma-informed lens. While these models are considered to be among emerging, promising, or leading practices, the results described in the report are based on implementation in different locations in North America and may not represent the actual results achieved when applying them in the context of Alberta. The models included are a limited sub-set of evidence-informed services and supports that may be provided to families by Alberta Children's Services under the Child Youth and Family Enhancement Act.

The resulting overview describes characteristics of models of care that are not only trauma informed and milieu in approach but also culturally competent and therefore beneficial and effective for the diverse populations that they serve.

It is important to note that as this area of practice and research continues to evolve, so too will our understandings. As organizations plan to implement these models of care they will need to delve deeper into the literature to understand specific requirements as well as how to ensure that the approaches that are selected are aligned with the broader framework of Foundations of Care Giver Support.

This document is designed to complement other decision support information.

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Perry, B. D., & Hambrick, E. P. (2008). The Neurosequential Model of Therapeutics. *Reclaiming Children & Youth, 17*(3), 38-43.

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Appendix A: Recommended Reading

General

Center on the Developing Child at Harvard University. (2016). From Best Practices to Breakthrough Impacts: A Science-Based Approach to Building a More Promising Future for Young Children and Families. Retrieved from: http://developingchild.harvard.edu/resources/from-best-practices-to-breakthrough-impacts/

The Center on the Developing Child is a research and development institute that supports innovation that achieves breakthrough outcomes for children. This report addresses the recent breakthroughs being made in the science of early childhood development and covers core concepts in the field. Lessons learned from five decades of program evaluation research are presented, providing evidence- informed reflection to guide policymaking and program development.

Children's Bureau, U.S. Department of Health and Human Services. (2015). Understanding the Effects of Maltreatment on Brain Development. Retrieved from: https://www.childwelfare.gov/pubPDFs/brain_development.pdf

The Child Welfare Information Gateway has made this issue brief accessible to a broad audience in order to provide basic information on brain development and the effects of abuse. The science of epigenetics is explored as an emerging way to understand the effects of maltreatment on behavioral, social, and emotional functioning. Implications for practice and policy are explored with an emphasis on the role of the child welfare system.

Family Caregivers Online. (2016). Loss and grief; loss defined. Retrieved from http://www.familycaregiversonline.net/online-education/loss-and-grief/#LossDefined

This online learning web module is intended to inform learners about the meaning of loss and grief. The grief process and how to identify normal grief and maladaptive grief responses are presented. Techniques to cope with grief and loss are provided from the perspective of those experiencing the process and their caregivers.

Foundations of Caregiver Support (FCS) (2015). Child and Family Services: Alberta Human Services. Retrieved from http://www.aascf.com/doc_view/15266-foundations-of-caregiver-support-june-2015

This document provides the vision and purpose of the FCS and a description of its three foundational pillars: child development, trauma, and loss and grief. It has been the central document used to inform the Models of Care Literature Review to remain aligned with Child Intervention and their respective stakeholders.

Hopper, E.K., Bassuk, E.L., & Olivet, J. (2010). Shelter from the storm: Trauma-informed care in homeless services settings. *The Open Health Services and Policy Journal, 3*, 80-100.

Targeting the social phenomenon of homelessness while recognizing that many service providers are becoming more aware of the importance of offering trauma informed care, this articles reviews qualitative and quantitative studies and other supporting literature the authors seek to clarify the definition of Trauma-Informed Care and discuss implications for practice, programming, policy, and research. What is of particular interest is that four criteria are identified as constituting trauma informed care: 1) trauma awareness, 2) emphasis on safety, 3) opportunities to rebuild control, and, 4)a strength-based approach.

Manitoba Trauma Information and Education Centre (MTIEC). (2013). *Trauma-informed. The Trauma Toolkit: A resource for service organizations and providers to deliver services that are trauma-informed,* (2nd ed). Manitoba Trauma Information and Education Centre (www.trauma-informed.ca). Downloaded from the internet on July 17, 2016 at http://trauma-informed.ca/wp-content/uploads/2013/10/Trauma-informed_Toolkit.pdf

The Trauma Toolkit is a resource to assist service organizations and providers with the delivery of trauma-informed practice. The Toolkit offers practitioners definitions of the various forms of trauma, its effects, neurobiology, the role of culture, recovery, and self-compassion. Guidelines for working with people affected by trauma are provided.

Manitoba Trauma Information and Education Centre (MTIEC). (2016). Homepage. Retrieved from http://trauma-informed.ca/

MTIEC is a community initiative established to enhance trauma informed care and practices within health care and human services. The website offers numerous resources and evidence-informed definitions of trauma, including reference to traumatic loss and grief.

Terr, L.C. (1991). Childhood traumas: An outline and overview. *American Journal of Psychiatry, 148*(1), 10-20. Retrieved from http://www.columbia.edu.ezproxy.lib.ucalgary.ca/cu/psychology/courses/3615/Readings/Terr_Childhood_Trauma.pdf

This seminal article introduces the idea of type 1 trauma (a single event) and type 2 (a series of events). The possibility for a type 1 trauma to transition into a type 2 trauma, referred to as a crossover condition, occurs when one significant event perpetuates ongoing challenges. Characteristics associated with each type are explored in depth with case study examples and clinical implications.

Webb, N.B. (Ed.). (2006). *Working with Traumatized Youth in Child Welfare*. New York, NY: The Guildford Press.

This book provides a collection of articles from leading academics and practitioners in the field of child trauma. The articles span from theoretical frameworks, practice contexts, helping interventions, and issues and proposals for collaboration between child welfare and mental health. Treatment approaches are explored and include structured time-limited groups, individual play and expressive therapy, cognitive-behavioral approaches, and eye movement desensitization and reprocessing.

Models

ARC

Arvidson, J., Kinniburgh, K., Howard, K., Spinazzola, J., Strothers, H., Evans, M., & ... Blaustein, M. E. (2011). Treatment of complex trauma in young children: Developmental and cultural considerations in application of the ARC intervention model. *Journal of Child & Adolescent Trauma, 4*(1), 34-51.

This article presents preliminary results from a naturalistic study that examined the utility of the Attachment, Self-Regulation, and Competency (ARC) model for 93 young children (3-12 years of age) from diverse ethnocultural backgrounds (American Indian, Alaskan Native, Caucasian, and African American). Results found statistically significant decreases in participants overall Child Behavior Check List (CBCL) *t*-scores and higher rates of permanent placement.

Hodgdon, H.B., Blaustein, M., Kinniburgh, K., Peterson, M.L., & Spinazzola, J. (2016). Application of the ARC model with adopted children: Supporting resiliency and family well-being. *Journal of Child Adolescence Trauma, 9*(1), 43-53.

This paper describes a naturalistic study that examined the effectiveness of a structured application of the ARC model with complex trauma-exposed, adoptive children and families ages 6–12 in an outpatient mental health clinic. Results found that ARC treatment was associated with significant decreases in child symptoms and caregiver stress from pre- to post-treatment, which were maintained over a 12-month follow up period. Findings also indicated that 16 weeks of individual and group based ARC treatment was associated with improvement in both child and caregiver functioning. Changes in child symptoms included reductions in internalizing, externalizing, posttraumatic stress, depression, anxiety, anger and dissociative symptoms from pre- to post-treatment gains, which were maintained over a 12-month follow up period. Youth also demonstrated change in PTSD diagnosis and promise for reducing externalizing behavioral problems (acting out, oppositionality, and aggression).

Hodgdon, H.B., Kinniburgh, K. , Gabowitz, D., Blaustein, M.E., & Spinazzola, J. (2013). Development and implementation of trauma informed programming in youth residential treatment centers using the ARC framework. *Journal of Family Violence, 28*(7), 679-692.

This paper describes a naturalistic study that examined the application of ARC with complexly traumatized youth in a residential treatment. Results identified a significant relation between the use of ARC and reductions in PTSD symptoms, externalizing and internalizing behaviors, and the frequency of restraints used across programs.

National Child Traumatic Stress Network. (2016). ARC: Attachment, Self-Regulation, and Competency: A Comprehensive Framework for Intervention with Complexly Traumatized Youth. *General Information Fact Sheet*. Retrieved from http://www.nctsn.org/sites/default/files/assets/pdfs/arc_general.pdf

The National Child Traumatic Stress Network tracks empirically supported treatments and promising practices to provide an on-line resource with succinct descriptive summaries that highlight the different aspects and approaches used by each model and the evidence supporting its utility and impact. The above link connects to the fact sheet on ARC.

Trauma Centre. (2007). Attachment, Regulation and Competency (ARC). *Trauma Centre at Justice Resource Institute*. Retrieved from http://www.traumacenter.org/research/ascot.php

This link connects to the home page for ARC which provides information on the model, its theoretical underpinnings, principles, training, and related publications.

Trauma Systems Therapy

Brown, A. D., McCauley, K., Navalta, C. P., & Saxe, G. N. (2013). Trauma Systems Therapy in residential settings: Improving emotion regulation and the social environment of traumatized children and youth in congregate care. *Journal of Family Violence, 28*(7), 693-703.

This article describes a mixed-method study that examined the implementation of Trauma Systems Therapy (TST) in three residential centers. The findings illustrate that the successful implementation of TST requires the training of staff at all levels, reconfiguring staff roles and responsibilities, increasing treatment planning time, and sharing TST concepts and language with youth and families. In contrast, what was found to impede the successful implementation of TST was identified as resistance to change/limited staff buy-in, financial considerations, creation of a genuine multidisciplinary TST team within residential treatment (i.e., direct care, clinical, education and therapeutic recreation), and the development of a trusting atmosphere that fosters open discussions of milieu.

Ellis, H. B., Fogler, J., Hansen, S., Forbes, P., Navalta, C. P., & Saxe, G. (2011). Trauma systems therapy: 15-month outcomes and the importance of effecting environmental change. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(6), 624-630.

This article discusses an exploratory study that examined 124 children ages 3-20 that received TST intervention over a 15-month period. The study was designed to analyze outcomes related to emotion regulation, social-environmental stability, and child functioning/strengths. Results demonstrated that improvements in child functioning/strengths and in social-environmental stability significantly contributed to overall improvement in emotion regulation. In addition, children who became stable enough to transition to office-based services during early treatment tended to stay in treatment and continued to improve and the number of children needing crisis-stabilization services at 15 months reduced more than half for children that completed treatment.

National Child Traumatic Stress Network. (2016). Trauma Systems Therapy. *General Information Fact Sheet*. Retrieved from http://www.nctsn.org/sites/default/files/assets/pdfs/tst_general.pdf

The National Child Traumatic Stress Network tracks empirically supported treatments and promising practices to provide an on-line resource with succinct descriptive summaries that highlight the different aspects and approaches used by each model and the evidence supporting its utility and impact. The above link connects to the fact sheet on TST.

Navalta, C. P., Brown, A. D., Nisewaner, A., Ellis, B. H., & Saxe, G. N. Trauma Systems Therapy. (2013). In J. Ford & C. Courtois (Eds.), *Treating complex traumatic stress disorders in children and adolescents: Scientific foundations and therapeutic models* (pp. 329-348). New York, NY: The Guilford Press.

The authors describe TST and how it was designed to comprehensively address youth that have experienced trauma through a system of care that focuses on developing the youth's ability to emotionally and behaviourally regulate while also addressing the social environment that can trigger and maintain dysregulation.

NYU School of Medicine. (2016). Trauma Systems Therapy. *Child Study Center*. Retrieved from http://www.med.nyu.edu/child-adolescent-psychiatry/research/institutes-and-programs/trauma-and-resilience-research-program/trauma-systems-therapy

This link connects to the home page for the TST which provides information on the model, its theoretical underpinnings, principles, training, and related publications.

Saxe, G. N., Ellis, B. H., & Kaplow. J. B. (2007). *Collaborative treatment of traumatized children and teens: The Trauma Systems Therapy approach*. New York, NY: The Guilford Press.

This book describes the TST and how it can be utilized for individualized treatment and services at the level of the home, school, and community. In addition to discussing TST, the authors provide user-friendly resources such as step-by-step guidelines for assessment and intervention.

Sanctuary Model

Bloom, S. L. (2013). The Sanctuary Model: Changing habits and transforming the organizational operating system. In J. D. Ford & C. A. Courtois (Eds.)*, Treating Complex Traumatic Stress Disorders in Childhood and Adolescence*. New York, NY: Guilford Press.

This article provides an overview of the Sanctuary Model, its key principles, theoretical underpinning (trauma and organizational change theory), how to implement the Model, the certification process and expected outcomes.

Esaki, N., Hopson, L. M., & Middleton, J. S. (2014). Sanctuary Model implementation from the perspective of indirect care staff. *Families in Society, 95*(4), 261-268.

This article discusses a participatory action research study that assessed the implementation of the Sanctuary Model from the perspective of indirect care staff within a voluntary child welfare agency. Results demonstrated that indirect care staff members, on average, were moderately open to change and observed a modest success in implementing the Sanctuary Model. Of particular interest was a finding that indicated that the appropriateness of the model for meeting a need within the agency corresponds and organizational commitment to the model is argued to align with existing empirical and theoretical literature regarding the importance of supervisor support and staff buy-in with regard to successful implementation of organizational change.

National Child Traumatic Stress Network. (2016). Sanctuary Model. *General Information Fact Sheet*. Retrieved from http://www.nctsn.org/sites/default/files/assets/pdfs/sanctuary_general.pdf

The National Child Traumatic Stress Network tracks empirically supported treatments and promising practices to provide an on-line resource with succinct descriptive summaries that highlight the different aspects and approaches used by each model and the evidence supporting its utility and impact. The above link connects to the fact sheet on the Sanctuary Model.

Rivard, J.C., Bloom, S. L., McCorkle, D. and Abramovitz, R. (2005). Preliminary results of a study examining the implementation and effects of a trauma recovery framework for youths in residential treatment. *Therapeutic Community*: *The International Journal for Therapeutic and Supportive Organizations, 26*(1), 83-96.

This article discusses an evaluation that included 158 participants and employed a comparison group design (Sanctuary Model units group and Residential Service units group) to examine the impact of the Sanctuary Model on a treatment environment and treatment approach that aimed to teach youth effective adaptation and coping skills to replace non-adaptive cognitive, social, and behavioral strategies acquired as means of coping with traumatic life experiences. The results found that The Sanctuary Model units scored significantly higher on scales measuring the extent to which; community members help and support each other, the program encourages

the open expression of feelings, the program promotes self-sufficiency and independence in decision making, community members seek to understand their feelings and personal problems, the program environment promotes physical, social, and psychological safety for staff and clients.

Sanctuary Model. (2016). The Sanctuary Model. *The Sanctuary Model*. Retrieved from http://www.sanctuaryweb.com/Home.aspx

This link connects to the home page for the Sanctuary Model which provides information on the model, its theoretical underpinnings, principles, training, and related publications.

Smith, M. L., Geleta, N. E., Dixon, A., & Curtin, S. (2015). Collaboration rebuilds a sense of belonging for students of color using the Sanctuary Model® as a framework. *Making Connections Interdisciplinary Approaches to Cultural Diversity, 16*(1), 27-34.

This is a discussion paper that explores how the Sanctuary Model was/can be used as a framework for change that challenged the institution to heal itself while simultaneously healing those (minority youth) that have experienced trauma.

Neurosequential Model of Therapeutics

Barfield, S., Dobson, C., Gaskill, R. & Bruce, P. (2012). Neurosequential Model of Therapeutics in a therapeutic preschool: Implications for work with children with complex neuropsychiatric problems. *International Journal of Play Therapy, 21*(1), 30-44.

This paper discusses a quasi-experimental study that examined whether the Neurosequential Model of Therapeutics (NMT) could promote social and emotional development and improve behaviour for preschool children in a rural setting. Overall, the findings found that integrating patterned repetitive somatosensory activities into the educational environment in a consistent and predictable manner throughout the day resulted in a decrease in challenging behaviors.

Child Trauma Academy. (2016). Neurosequential Model of Therapeutics. *NMT*. Retrieved from http://childtrauma.org/nmt-model/

This link connects to the home page for the NMT which provides information on the model, its theoretical underpinnings, principles, training, and related publications.

Perry, B.D. (2006). Applying principles of neurodevelopment to clinical work with maltreated and traumatized children: The Neurosequential Model of Therapeutics. In N.B. Webb (Ed.), *Working with traumatized youth in child welfare* (pp.27- 52). New York, NY: The Guilford Press.

This is an edited book chapter which provides an overview of the six principles of NMT which emphasize the hierarchy of brain function, role of neural systems, sequential brain development, rapid brain development early in life, the ability to change neural systems, and the idea that the brain was not designed for life as it is now lived. The clinical implications of these six principles are explored in relation to NMT practice. The importance of a child's socialization and relationships are at the core of these implications.

Perry, B. D. (2009). Examining child maltreatment through a neurodevelopmental lens: Clinical applications of the Neurosequential Model of Therapeutics. *Journal of Loss & Trauma, 14*(4), 240-255.

This is a discussion paper that outlines the theoretical framework that underpins the development of NMT as a clinical assessment tool that was designed to provide clinicians with a neurodevelopmentally-informed approach to identify developmentally appropriate interventions for maltreated and traumatized children and youth. This article briefly reviews preliminary studies and call for more in-depth analysis of the outcomes associated with the utilization of NMT.

Perry, B. D., & Hambrick, E. P. (2008). The Neurosequential Model of Therapeutics. *Reclaiming Children & Youth, 17*(3), 38-43.

This is a discussion paper that outlines the theoretical framework that underpins the development of NMT as a clinical assessment tool. In particular, this article unpacks how the model establishes a child's developmental history in order to develop a functional brain map that can be used to inform clinical decisions about what interventions are developmentally appropriate for maltreated and traumatized children and youth.

Sori, C. F., & Schnur, S. (2014). Integrating a neurosequential approach in the treatment of traumatized children: An interview with Eliana Gil, part II. *Family Journal, 22*(2), 251-257.

In this article, Catherine Ford Sori interviews Dr. Eliana Gil regarding how she incorporates recent findings in interpersonal neurobiology with current attachment-enhancing play therapy approaches. Dr. Gil discusses how to incorporate NMT into clinical practice in the treatment of abused and traumatized children and youth.

Walker, R., (2009). Translating neurodevelopment to practice: How to go from fMRI to a home visit. *Journal of Loss & Trauma, 14*(4), 256-265.

Paper provides a critical critique of NMT and argues that there needs to be a paradigm shift to move services provides away from manualized training and towards an educational process that facilitates staff's ability to have a working knowledge NMT and its application and implementation.

CARE

Holden, M. J., Izzo, C., Nunno, M., Smith, E. G., Endres, T., Holden, J. C., & Kuhn, F. (2010). Children and residential experiences: A comprehensive strategy for implementing a research-informed program model for residential care. *Child Welfare, 89*(2), 131-149.

This paper describes an exploratory study that examined and effort to bridge research and practice in residential care through implementing a program model of Children and Residential Experiences (CARE). The strategy involves consulting at all levels of the organization to guide personnel to incorporate the evidence-based principles of CARE into daily practice, and fostering an organizational culture and climate that sustains the integration of CARE principles. Results found that an increase in knowledge of CARE was linked to an intent to engage in genuine change.

Izzo, C., Smith, E., Holden, M., Norton, C., Nunno, M., Sellers, D., Izzo, C. V., Smith, E. G., Holden, M. J., Norton, C. I., Nunno, M. A., & Sellers, D. E. (2016). Intervening at the setting level to prevent behavioral incidents in residential child care: Efficacy of the CARE program model. *Prevention Science, 17*(5), 554-564.

Examined the impact of a setting-level intervention on the prevention of aggressive or dangerous behavioral incidents involving youth living in group care environments. Over a 3 year implementation period eleven group care agencies collected data on the monthly basis. Analysed data demonstrated a significant decline in behavioural incidents compared to the 12 months before implementation. Results also illustrated significant program effects on incidents involving youth aggression toward adult staff, property destruction, and running away. Effects on aggression toward peers and self-harm were also found but were less consistent. Staff ratings of positive organizational social context predicted fewer incidents, but there was no clear relationship between organizational social context and observed program effects.

Judge Baker Children's Center. (2016). Child-Adult Relationship Enhancement (CARE) Training. *Center for Effective Child Therapy*. Retrieved from http://www.traumacenter.org/research/ascot.php

This link connects to the home page for CARE which provides information on the model, its theoretical underpinnings, principles, training, and related publications.

National Child Traumatic Stress Network. (2016). CARE: Child-Adult Relationship Enhancement. *General Information Fact Sheet*. Retrieved from http://www.nctsn.org/sites/default/files/assets/pdfs/care_general.pdf

The National Child Traumatic Stress Network tracks empirically supported treatments and promising practices to provide an on-line resource with succinct descriptive summaries that highlight the different aspects and approaches used by each model and the evidence supporting its utility and impact. The above link connects to the fact sheet on CARE.

Comprehensive Resources

The following resources are web sites that provide an overview of several models and resources.

Organization	Type of resource	URL
Stanford Research Group on Collective Trauma and Healing	List of trauma experts and centers in California. Programs are funded and will include outcomes evaluations.	https://traumaandhealing.stanford.edu/trauma-experts-and-centers
The National Child Traumatic Stress Network (NCTSN)	Lists products developed by NCTSN for parents, caregivers and teachers to help child and teens that have experienced trauma. Details regarding the different training modules are not provided but contact information is.	http://nctsn.org/
Department of Children and Families	Lists effective treatment for Child Traumatic Stress	http://www.ct.gov/dcf/cwp/view.asp?a=4368&Q=514042#Caregivers
Children's Mental Health Research Quarterly	Helping Children Overcome Trauma	http://childhealthpolicy.ca/wp-content/uploads/2012/12/RQ-3-11-Summer.pdf
Trauma Treatment Fact Sheet (NCTSN)	Lists promising practices	http://www.nctsn.org/resources/topics/treatments-that-work/promising-practices
SAMHSA	Information of Trauma-Informed Approaches and Interventions	http://www.samhsa.gov/nctic/trauma-interventions
Manitoba Trauma Information and Education Centre (MTIEC)	Links to resources, training, knowledge products and contact information to establish trauma informed care and practices as integral to health and human services in Manitoba.	www.trauma-informed.ca

Appendix A – Search Strategy

As demonstrated in Figure 2, during the initial phase of this project 19 models of care were identified as potential models for a more in-depth review. As more data was gathered, models that did not meet our criteria (trauma informed and milieu approach) were eliminated leaving the five models of care examined in this document. In total, 89 peer reviewed and 40 grey articles were reviewed.

Literature was located by conducting searches in Academic Search Premier, JSTOR, and GOOGLE and by using the following keywords:
ARC, Trauma Systems Therapy, Sanctuary Model, Neurosequential Model of Therapeutics, CARE, trauma, grief, loss, developmentally sensitive and appropriate, culturally inclusive.

Figure 1: Search Strategy