Center for Resiliency and Wellbeing: Integrated and Integrative Care Model White Paper

Our Approach to Protect, Support and Heal the Whole Person/Development of Our Model

INTRODUCTION

As we expand our knowledge of the ties between our psychological and physical health, we are moving our healthcare model from one of treating disease to preventing disease. Recent changes in healthcare, such as integrating behavioral and mental health into a primary care medical home, have taken some steps towards understanding the mind-body connection. However, these changes have fallen short in being able to assess and integrate a person's emotional, physical, spiritual, and social experiences to develop an individualized plan of care that prevents illness and promotes wellbeing.

The Center for Resiliency and Wellbeing ("CRW" or "the Center") Model utilizes a comprehensive lens to understand how the dynamics of the child and family (genetics, relationships and experiences, and their environment) affect the development, health, and wellbeing of a person.

BACKGROUND

- Stress is a normal part of life and everyone experiences it. Stress can help children learn and develop in healthy ways or it can cause significant and lasting problems depending on the human relationships and support systems they have and the resiliency they have developed.
- The normal stress response, "Flight, Fight, or Freeze," is the body's natural response to protect itself in the presence of a real or perceived threat and is important for survival.
- Some stress is necessary for normal development. It is how a person is able to respond and handle the stress that determines how it affects them emotionally, mentally, and physically.
- The National Scientific Council on the Developing Child, and the American Academy of Pediatrics, has defined three types of stress responses: Positive Stress, Tolerable Stress, and Toxic Stress. 14
 - o Positive Stress is a necessary response for appropriate and healthy child development.¹⁴
 - Tolerable Stress is a little more severe and prolonged response but is mitigated if there is a safe, stable and nurturing adult to decrease the stress hormones and chemicals back to baseline. (14)
 - Toxic Stress is a prolonged, extreme and/or persistent stress response in the absence of a safe, stable, and nurturing adult. Research has shown that because the stress hormones and chemicals do not go back to baseline it causes a "wear and tear" on the body (Allostatic Load).^{13, 14}
- Any stress a child experiences has the potential to biologically change the brain structure and function. These changes can be adaptive and healthy or maladaptive and unhealthy.
- Toxic Stress can lead to permanent, unhealthy changes in the brain structure and function, immune system, neuroendocrine system, gut-brain axis (microbiome), metabolic system, and even genetic expression. This can have long-lasting negative emotional, behavioral, mental, and physical effects.^{11, 16}
- Toxic Stress causes the regulated and adaptive "Flight, Fight, or Freeze" response to become dysregulated and maladaptive. Ultimately, this Toxic Stress Response causes the amygdala

- (emotional memory center and detects threats to survival) to become overactive and enlarge. Meanwhile, the hippocampus (long-term memory and retrieval of memories for learning) and prefrontal cortex (executive functions and decision center) of the brain get smaller. Ultimately, this leads to changes in multiple organ systems.
- The difference between Tolerable Stress and Toxic Stress is the extent to which a person can manage the stress. Children are not self-sufficient and need adults around them to help buffer their stress (Safe, Stable, Nurturing Adults) and to help them learn how to cope with stress themselves (Resilience).¹⁵
- Children with Adverse Child Experiences (ACEs) have significant stressors in their lives and in the
 absence of Safe, Stable, Nurturing, Relationship (SSNR) Toxic Stress may result. This Toxic Stress
 Response leads to allostatic loading and may result in long-lasting, possibly permanent, negative
 medical, emotional, behavioral, and mental health problems.
- Evidence-based research shows that early recognition and treatment of trauma, building
 protective factors, and strengthening a child's resiliency can promote wellbeing and combat ACEs
 and the Toxic Stress Response.

KEY COMPONENTS

- Integrated Medical Care: provides physical health and mental health in the same setting by utilizing conventional healthcare in co-located medical practices.
- Integrative Medical Care: provides "well care" which combines conventional and complementary healthcare practices to evaluate and address the mind, body, and spirit. The Well Care Integrative Model treats illness, when present, but is primarily focused on preventing illness before it arises.
- Presently, healthcare in the United States is more of a disease-care model in so much as it focuses on treatment of a disease once manifested. Integrated healthcare has taken steps towards understanding the mind-body connection but has not encompassed looking at preventative care and how ecobiodevelopmental factors (EBD)¹⁴ affect the health and wellbeing of a person.
- Studies in neuroplasticity show that the brain makes neuronal connections throughout life but exhibits the most plasticity between 0-5 years of age and during puberty.^{3,4}
- Anything that a child encounters or experiences during these critical periods, whether positive or negative, has the potential to affect the development of brain structures and neuronal connections in a corresponding manner.³
- As a result, it is critical that we treat the whole child by addressing their emotional, physical, mental, social, spiritual, and environmental needs.
- The ACEs screening is used by medical providers to detect risk. Those patients who are deemed "high-risk" by a defined set of criteria are referred to the Center for Resiliency and Wellbeing.
- The ACEs screening looks only at risk. Once increased risk is established, a comprehensive Wellness Assessment is utilized to determine the course of care necessary to mitigate that risk.
- The Wellness Assessment (WA) is completed at first patient/family visit that gathers information about the "whole child" and their family (strengths, assets, and areas of need) so that an individualized treatment plan can be outlined.
- Currently, there is no validated questionnaire that captures an objective measure for overall resiliency.
- The WA is comprised of adapted questions taken from different resiliency questionnaires as well as questions that the Center has crafted to capture resiliency. These questions help to determine a Resiliency Measure (RM) and are focused on four main areas: (1) Community and Environmental

- Supports; (2) Education and Learning; (3) Emotional, Medical, and Behavioral; and (4) Family and Parenting.
- The questions to obtain the Resiliency Measure are evidence-based and trackable, creating an objective metric.
- Throughout the program, the patient's RM can be re-evaluated. This allows the program to track a child/teen's progress over the course of participation in the program.
- The WA also helps to determine patient and family strengths as well as determine goals in the Integrated and Integrative Care Model.
- There are five phases in the Integrated and Integrative Care Model: Foundation, Wellbeing, Connecting, Skill Building, and Contributing.
- This strength-based approach helps to identify protective factors which have been defined as: concrete support in times of need, social connections, parent resiliency, understanding of parenting and child development, and socio-emotional wellbeing of the child (Strengthening Families).^{2,5,8}
- A patient can be in any number of phases at a given time depending on the individualized treatment plan.
- We are limited in our impact if we do not focus on protective and nurturing relationships as they are what ultimately prevent, mitigate, and treat trauma.² The program understands this and is built around understanding, educating, and treating both the patient and family.

EQUITY AND INCLUSION

The CRW program is dedicated to addressing health equity and recognizes that our specific patient population includes children, teenagers, and families who are at particularly high risk for the negative long-term health outcomes stemming from intergenerational trauma and exposure to personal and environmental inequities. CRW is a safe place for person of all backgrounds and identities. Therefore we have implemented strategies in addition to the policies utilized across the Phoenix Children's Enterprise to meet the needs of the patients and families we serve:

- First, we will expand our first pillar of Screening to becoming the community standard through education of community providers on the role of ACEs and TIC in preventing barriers to access of quality medical care and establishing guidelines so that they are paid appropriately to screen for adverse childhood events, family strengths, and protective factors on **every** child and teen.
- The Wellness Assessment, conducted at the first appointment, asks specifically about suffering, or perception of suffering, resulting from inequities based on race, class, sexual orientation, or gender. We will use this as a metric in future research on resiliency to advocate for **all** children.
- Built around an individualized care model and through an awareness that everyone has different strengths and needs, we are able to treat the whole child.
- In addition, strategies are in place to prevent, mitigate, and treat the unique needs of children, teens, and families who have experienced trauma. We are proud to be a voice in advocating for these populations at a local and national level.

OVERVIEW OF THE PROGRAM

CRW Mission

To transform the lives of Arizona children who have experienced adversity or trauma by providing evidence-based integrated and integrative health services.

The Four Pillars

Screening:	- Screenings are completed at well child visits (1-17 years old) at: PCH General Pediatrics,
55.558.	PCH Homeless Youth Outreach sites and community clinics who have been educated on
	ACE's, TIC and ACE screening.
	- Children with an ACEs score of 4 or above or those with a score of 3 accompanied by
	physical, emotional, or behavioral symptoms are referred to the CRW team.
Intervention:	- Perform the Wellness Assessment (WA) at first patient/ family visit to obtain a Resiliency
	Measure (RM).
	- Apply the 5 phases of the Integrated and Integrative Care Model based on specific
	individualized goals and needs.
	- A Wellness Nurse provides education sessions focused on the Integrated and Integrative
	Care Model and the patient's goals and needs.
	- Provide case management that is trauma-informed.
	- Provide short term evidence-based Trauma-Informed Mental Health Therapy.
	- Mental and Behavioral Health support to help improve overall wellbeing through social-
	emotional skill building and short-term therapy to help the patient through challenging
	times.
	- Assist in connecting to community collaborations for ongoing long-term therapy and
	support.
	- Collaborate with trauma-informed community partners and refer where necessary for
	ongoing treatments and interventions.
Education:	- Execute the five Integrated and Integrative Care Model Phases.
	- Set goals, in partnership with the patient and family, throughout the different phases.
	- All materials / handouts utilized and given are standardized and/or evidence-based.
	- These materials/ handouts are utilized in all five phases of the Integrated and Integrative
	Care Model.
	- PCH staff, residents, pediatric physicians, community pediatricians, pediatric providers, and
	community organizations will be educated about Adverse Childhood Experiences, Toxic
	Stress, and Resiliency.
	-Pediatric physicians and providers will be educated on the <i>Pediatric Advantage</i>
	(pediatricians are uniquely qualified and understand development and that wellbeing
	requires interventions quite distal to physical health).
	- Pediatric physicians and providers will also be educated on the strength-based approach
	per Bright Futures.
Research &	- Resiliency Measure: establishes a baseline assessment of the child and family's ability to
Evaluations:	respond to stress/adversity in a positive manner and provides CRW the ability to quantify
	progress to interventions that are provided by the program.
	- Collect data across different pediatric healthcare settings.
	- Evaluate metrics and data to understand where the gaps are in care and what treatments
	are needed in the community.
	- Streamline the screening process to improve both efficiency and the percentage of ACEs
	screens performed at well child checks and new patient visits
	- Use the collected metrics and data to improve the CRW program
	- Contribute to the national data on ACEs, Toxic Stress, resiliency, and evidence-based
	treatments.

The Center for Resiliency and Wellbeing model is based on understanding and treating the whole person knowing that early experiences and environmental influences can have a critical long-lasting health effect on gene expression, brain development, neuropathways, endocrine and immune system (ecobiodevelopmental factors¹⁴). The program is centered around an Integrated and Integrative Care Model approach that encompasses key factors including:

- o <u>Protective Factors</u> (Strengthening Families): concrete support in times of need, social connections, parent resilience, knowledge of parenting and child development and socioemotional competence of children.^{2,8} Understanding and building on protective factors that mitigate risks and promote healthy development.⁸
- <u>Essentials for Childhood</u> (as defined by the CDC): strategies to promote relationships and environments that can help create neighborhoods, communities, and a world in which every child can thrive and decrease the risk of child abuse and neglect.¹
- <u>Trauma-Informed Care</u>: looks at the past and present picture of a patient's life in order to provide comprehensive and whole-person health care services. Since research has shown that life experiences are often the root cause of poor health, CRW approaches patients from the lens of "what happened to you?" instead of "what is wrong with you?" to deliver healing care.
- <u>Building Resiliency</u> by promoting competence, confidence, connectedness, character, contribution, coping, and control.⁷
- Using the Integrated and Integrative Care Model approach, members in the program work collaboratively with the patient and family to develop strength-based goals and interventions.
- Both the patient and the patient's family are involved in the education, decisions, goal setting and interventions. Thus, creating an emphasis on a "family-centered" care model.
- All the handouts are standardized and/or evidence-based to allow the team and family a clear plan for to provide interventions, teaching and growth.
- The patient, family/caregiver, and CRW teamwork in partnership through an Integrated and Integrative Goal Sheet to track strengths and resiliency.

Wellness Assessment (WA)

The WA is completed by the patient and/or caregiver at the first meeting and is comprised of 3 sections:

- Demographics
- Family's basic needs and social determinants of health⁵
- The patient's resiliency (Resiliency Measure (RM))

Basic Needs / Social Determinants of Health

- Assess for any unmet basic needs so CRW can help connect the family to community supports
- Basic needs and SDoH can impact the capacity to build resilience by straining or shielding protective factors

Resiliency Measure (RM):

- The questions were developed through extensive research and collaboration of articles on Resiliency, Toxic Stress, and ACEs
- Composed of four main dimensions
 - Community/environmental support
 - Education/learning
 - Emotional/medical and behavioral health

- Family/ parenting
- Each question has two purposes:
 - Stands alone clinically to:
 - develop individualized goals and treatment plans
 - understand patient and family strengths,
 - o Additive to come up with a total number, the Resiliency Measure
- Building on the original strengths, the RM can be tracked over time and the methodology allows the CRW team to assess where continued support is needed.

(1) Foundation Phase

- This phase is the starting point, center of care, and is defined in the Wellness Assessment.
- Assesses the family's current strengths and physiological needs. This information is vital in understanding what the most basic needs are that drives the patient's and family's motivation and behavior. Once the most basic needs are met, they can then work on areas to improve safety, self-efficacy, hope, resiliency and mental, emotional and physical health.

(2) Wellbeing Phase

- Support, protect, and heal by decreasing inflammation and metabolize stress chemicals and hormones.
 - O Research on neuroplasticity shows that developing "ATTENTION" is key to developing the areas of connection in the brain that are underdeveloped as a result of Toxic Stress. (3)
 - Teach the "BREATH" which helps in developing awareness or "ATTENTION." This process helps to calm, cultivate, and clarify so as to have a "healthy action" instead of an unhealthy "reactive response" to a stimulus.
 - Teaching "Attention" is a process that needs to be both learned and developed with practice and is emphasized in this phase with the patient and the caregiver.
- CRW does this through:
 - Mindfulness (Awareness or Attention)
 - Decreases the inflammatory response
 - Enhances regulation and resilience
 - Activates the parasympathetic system ("Rest and Digest")
 - · Improves and strengthens Executive Function (self-regulation, cognitive flexibility, plan)
 - Sleep
 - Educate on a healthy routine and hours needed daily
 - Allows the immune system to reboot
 - Decreases inflammation
 - Decreases cortisol
 - Exercise/Physical Activity
 - Metabolizes the stress hormones and chemicals
 - Decreases inflammation
 - Decreases blood glucose
 - Improves and strengthens executive function (self-regulation, cognitive flexibility, plan)
 - Nutrition

- Educate on healthy choices and habits
- Educate and encourage limiting foods that increase inflammation
- Educate and encourage eating foods that decrease inflammation
- If supplements are needed, referral to a nutritionist and/or their PCP for recommendations
- Self-Compassion¹³ and Self-Efficacy
 - Learn to understand and love oneself in times of perceived inadequacy, suffering, or failure
 - Instills more overall "wellbeing"
 - Decreases anxiety and depression
 - Develops resiliency to cope with adversities and stress
- Complementary Modalities
 - Meditation
 - Art
 - Pet(s)
 - Music
 - Trauma-Informed Yoga

(3) Connecting Phase

- Building resilience and improving health for the patient and their family by connecting the whole team of providers.
- CRW does this through:
 - Mental Health Counseling
 - Psychiatry
 - Primary Care Provider
 - Pediatric Specialists
 - o Behavioral Health
 - Physical, Occupational, and/or Speech Therapy
 - Care Coordination

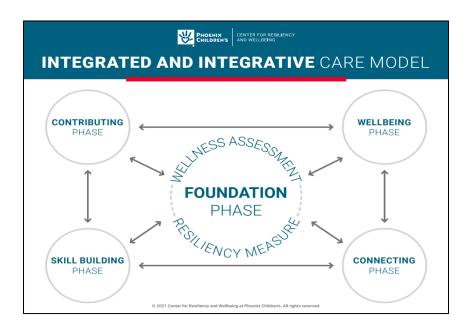
(4) Skill Building Phase

- Practice and strengthen skills to empower the patient and family while building resiliency, coping abilities, and the family's network of support.
- CRW does this through:
 - Community Resources
 - Practice adaptive skills that have been taught to help build new, healthy neuropathways
 "Mental Memory"
 - o Strengthen the "Toolkit" of skills and behaviors that have been developed
 - Patient empowerment
 - Build competence and confidence
 - Instill self-efficacy and hope
 - Prepare for adolescence and adulthood
 - o Family/caregiver empowerment, which can include, but is not limited to:
 - Positive parenting skills
 - Connection to community job and career counseling
 - Community connections for educational skills

- Parental/ Caregiver resilience
- Understanding of expected, age appropriate child development and behavior

(5) Contributing Phase

- Provides the patient and family with confidence, community awareness, connection, and feelings of competency.
- Patients and the family use the tools (skills) they have in their "toolkit" from all five phases to give back. Examples:
 - o Being a more present parent
 - Creating an environment of predictable support for their own family
 - o Service and kindness through the community and school system
 - Peer support positive parenting
 - Advocacy for others
- Participate in the community to contribute and educate
 - Adverse Childhood Experiences awareness
 - Decrease transgenerational transmission
 - Increase self-efficacy
- Builds: confidence, character, connectedness, contribution and sense of purpose
- Instills hope and healing



The Integrated and Integrative Care Model

Of note, the patient can work on one phase, multiple phases, or all phases simultaneously. Each patient phase is identified and individualized during the Wellness Assessment.

Resources

- 1. Centers for Disease Control and Prevention, Essentials for Childhood: Creating Safe, Stable, Nurturing Relationships and Environments, March 5, 2019.
- 2. Chung EK, Siegel BS, Garg A, et al. (2016) Screening for social determinants of health among children and families living in poverty: a guide for clinicians. Curr Probl Pediatr Adolesc Health Care 2016; 46:135-153. Available at http://dx.doi.org/10.1016/j.cppeds.2016.02.004.
- 3. Davidson, R. (2019, February 14). Richard Davidson A Neuroscientist on Love and Learning. Retrieved from https://onbeing.org/programs/richard-davidson-a-neuroscientist-on-love-and-learning-feb2019.
- 4. Knudson E, Sensitive periods in the development of the brain and behavior, J Cogn NeuroScience 2004: 16 (8)
- 5. Garg A, Boynton-Jarrett R, Dworkin P. (2016, June 27) Avoiding the unintended consequences of screening for social determinants of health. JAMA Published online. Available at http://jama.jamanetwork.com/article.aspx?articleID=2531579.
- 6. Garner A, Shonkoff J, Siegel B, Dobbins M, Earls M, McGuinn L, Pasco J, Wood D, Early Childhood Adversity, Toxic Stress and the Role of the Pediatrician: Translating Developmental Science Into Lifelong Health, Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption and Dependent Care and Section on Developmental and Behavioral Pediatrics , AAP 2012:129:e224.
- 7. Ginsburg KR, Jablow MM, Building Resilience in Children and Teens: Giving Kids Roots and Wings, The 7 C's of Resiliency, Second ed., 2015.
- 8. Harper Browne, C. (2014, September). The Strengthening Families Approach and Protective Factors Framework: Branching out and reaching deeper. Washington, DC: The Center for the Study of Social Policy. Available at www.cssp.org/reform/strengthening-families.
- 9. Masten A, Ordinary magic: resilience in development. New York: 2014.
- 10. Maslow A, Maslow's Hierarchy of Needs, Theory of Human Motivation, 1943.
- 11. McEwen B, Danese A, Adverse Childhood Experiences, allostasis, and age-related disease. Physiologic Behavior 2012:106(1).
- 12. Minds, C. F. (n.d.). Center for Healthy Minds. Retrieved from https://centerhealthyminds.org/science/studies/mind-brain-and-emotion.
- 13. Neff, Kristen, self-compassion.org.
- 14. Shonkoff J, Garner A, The Lifelong Effects of Early Childhood Adversity and Toxic Stress, The committee on Psychosocial Aspects of Child and Family Health Committee on Early Development and Behavioral Pediatrics, Pediatrics, 2012; 129; e232.
- 15. Shonkoff J, Center on the Developing Child, Harvard University.
- 16. Berens A.E, Jensen S.K.G, Nelson III C.A., Biological Embedding of Childhood Adversity: From physiological mechanisms to clinical implications, BMC Medicine, 2017; 15:135.

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