

Pragmatic Language, Social Communication & Trauma-Informed SLP Practice

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Disclosures

Financial	Non-Financial
None	<ul style="list-style-type: none"> A founder of <i>Children's Trauma Assessment Center (MI)</i> Work with Children with histories of complex trauma Trainings on pragmatic language & social communication issues with this population

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None	<ul style="list-style-type: none"> Intern at the <i>Children's Trauma Assessment Center (MI)</i> Writing Master's Thesis on the effects of Trauma and FASD on Language.

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From the first draft of the Declaration of the Rights of the Child

The whole world stands to lose if the children of any nation grow up degenerate and demoralized through hunger (*and violence, and trauma*) and the whole world stands to gain if they grow up strong and healthy, able and willing to work for the good of their fellow people (*UNICEF, 1993, p.4*).

NOTE: The italics are our additions to the original quote

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Topics

- Emphasize the importance of services from SLPS from a trauma-informed perspective
- The consequences of complex trauma for communication
- Model of Trauma Informed Care
- Current pragmatic language & social communication data
- Implications for assessment and intervention

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Trauma-Informed Practice

1. Realizes the widespread impact of trauma
2. Recognizes signs and symptoms
3. Responds by integrating knowledge
4. Actively resists re-traumatization

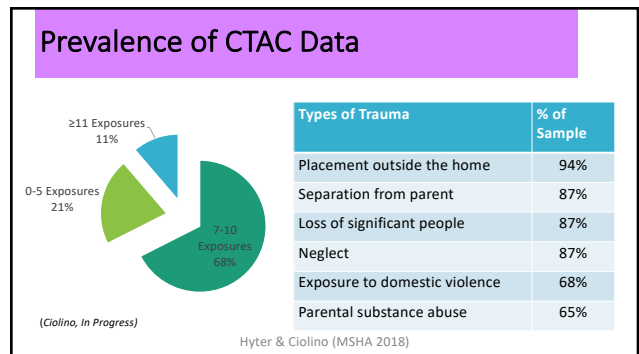
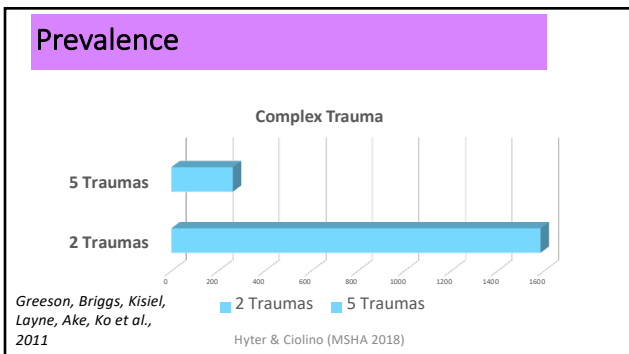
SAMHSA, 2015 Hyter & Ciolino (MSHA 2018)

Recognizing the Widespread Impact of Trauma

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The Context
Global Context
Wars
Displacement
Migration
Economic Short Fall

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Additional Data about CTAC Participants

Participant Demographics	n=79	Male: 48% (n=38) Female: 51% (n=41)
Age	5;3 to 15;10 m=9.92 years	56.80% (n=45) btw 9.07 and 15.11
KBIT-2 Composite Score	Range: 64 to 126 m=94.90	44.3% btw 86 and 100 32.9% btw 100 and 126 *58% had a diagnosed attention disorder
Number of Trauma Exposures	Range: 2 to 14 m=7.94	68.40% had btw 7 and 10 21.50% had btw 0 and 5

(Ciolino, in Progress; Hyter & Ciolino, 2017)
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Trauma and the SLP

- Children with maltreatment exposure...
 - are **seven times more likely** to be referred for SLP services than the general population
 - **use special education services at higher rates** than the general population.
- Children **with disabilities are more likely to experience maltreatment**

Sedlack & Basena (2014); Henry, Black-Pond, & Sloane (2007); Janson-Reid, Drake, Kim, Poterfeld, & Han (2004)

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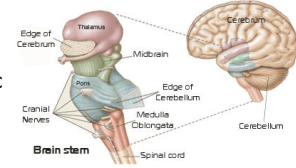
Recognizing Signs & Symptoms

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Effects of Complex Trauma on Development – Brain Behavior Connections

• Brainstem

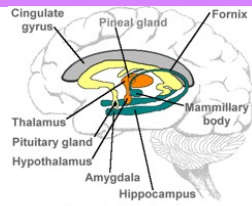
- Sleeping problems
- Attention problems
- Hyper sensitivity to somatic pain
- Sensory modulations problems



Henry et al.(2007); Steele & Malchiodi, 2016;

Hyter & Ciolino (MSHA 2018)

Effects of Complex Trauma on Development – Brain Behavior Connections



The Limbic System

Henry et al.(2007);

Hyter & Ciolino (MSHA 2018)

• Limbic System

- Difficulty regulating emotional response to memories or sensory experiences
- Thalamus to Amygdala pathway is sensitized
- Thalamus to Cortex to Amydala pathway is minimized

Effects of Complex Trauma on Development – Brain Behavior Connections



• Right Hemisphere Functions

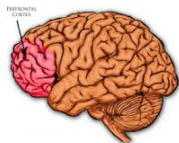
- Pragmatic knowledge
- Discourse Management
- Cognitive supports for pragmatic language and social communication
- Visual imagery
- Spatial abilities

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Effects of Complex Trauma on Development – Brain Behavior Connections

• Prefrontal Cortex

- Executive functions
- World knowledge
- Inferences

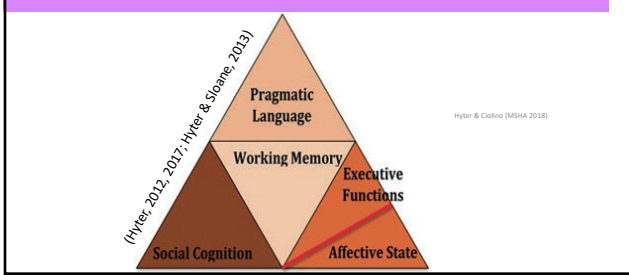


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Respond by Integrating Knowledge

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Social Language Impairment in Children with Complex Trauma Exposure



Pragmatic Language Skills of Children with Trauma Exposure

A meta-analysis found that children with trauma exposure scored lower than controls on standardized tests of pragmatics

Experimental Evidence of....

- Difficulty using various communicative functions
- Decreased conversational abilities
- Decreased Narrative cohesion and coherence
 - Demonstrated negative bias when retelling stories

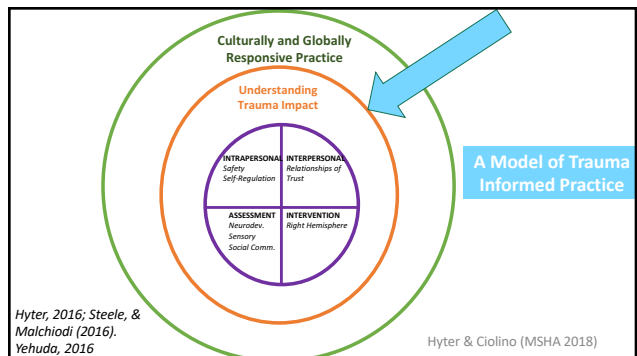
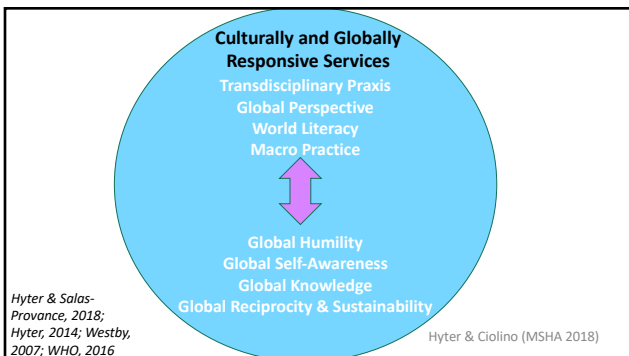
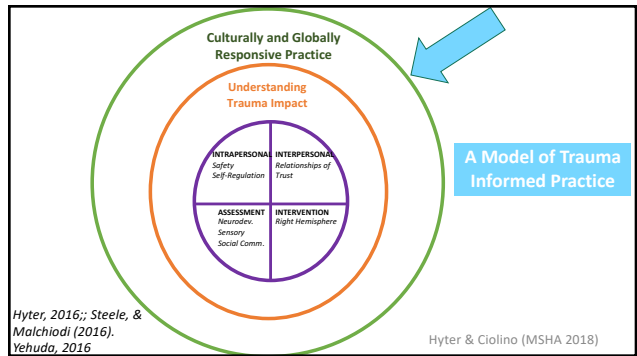
Ayoub et al. (2006), Ciolino, In Progress, Hyter (2012); Manso, Sanchez, Alonso, Romero, & Merino (2016); Sylvestre Bussieres, & Bouchard, (2016)

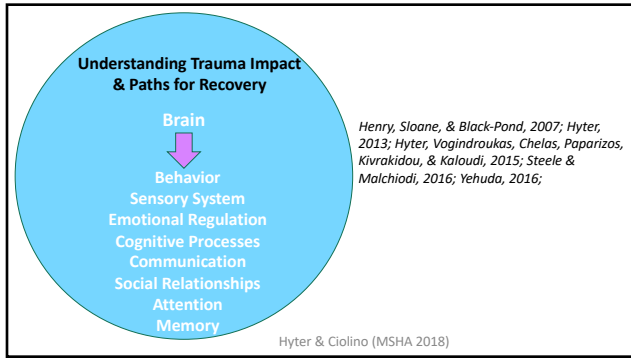
Hyter & Ciolino (MSHA 2018)

Syntax and Semantics in Children with Trauma Exposure

- Meta-analytic reviews found that children with trauma exposure demonstrate poorer scores on tests of **receptive vocabulary, expressive language, and receptive language** compared to other school-aged children with similar socioeconomic statuses.
- Hyter (2012) found that children with both comorbid FASD and trauma exposure had poorer outcomes on measures of syntactic and semantic tests compared to children who experienced trauma alone

Hyter & Ciolino (MSHA 2018) Lum, Powell, Timms, & Snow, (2015); Sylvestre et al.(2016);





Introducing Angelique (Hyter, 2012)

Angelique is a nine year-old child who has been living in an adoptive home since she was five years-old. Angelique 's biological parents have a history of drug and alcohol abuse, affecting their ability to parent. Angelique was removed from her biological home as a result of significant neglect and physical abuse. Her history details multiple visits to the hospital emergency room with fractured bones, and she was described as being emaciated prior to adoption. Sexual abuse was suspected but not substantiated.

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Angelique's Cognitive and Behavioral Profile

Angelique's adoptive mother has been concerned about her behavior since she was adopted, but in the last year, Angelique's **behavior has become increasingly violent, including homicidal threats, stealing, running away, and being disruptive in school.** Angelique's adoptive mother describes her as...

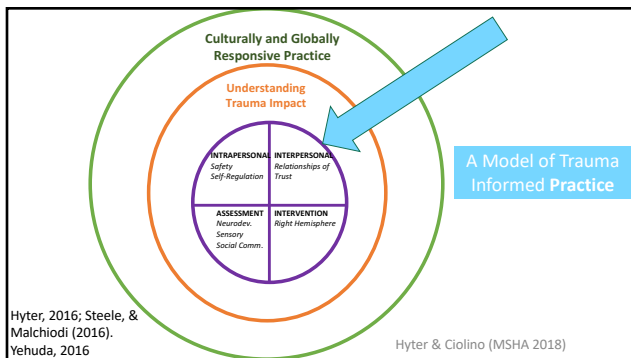
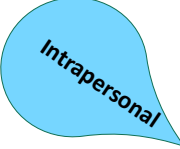
- "willing to go with any man"
- having no friends
- a literal thinker
- argumentative
- unable to separate fact from fiction

Hyter & Ciolino (MSHA 2018)

Angelique's Cognitive and Behavioral Profile Continued...

- **Similarly, the psychologist treating Angelique is concerned about her...**
 - inflexible thinking
 - limited ability to think abstractly
- Angelique said that she does not steal, but finds things that "happen to fall out of [people's] backpacks (Hyter, 2012)."

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- **Safety**
- **Autonomy**
- **Self Regulation**

Hyter, 2016; Steele, & Malchiadi (2016); Yehuda, 2016; Hyter & Ciolino (MSHA 2018)

- Relationships of Trust
- Environmental Integrity

Hyter, 2016; Steele, & Malchiodi (2016). Yehuda, 2016

Hyter & Ciolino (MSHA 2018)

- Neurodevelopmental
- Sensory
- Social Communication & Pragmatic Language

Hyter, 2016; Steele, & Malchiodi (2016). Yehuda, 2016

Hyter & Ciolino (MSHA 2018)

CELF-5 Screening Test Results

- Overall High Pass-Rates:**78.95% (n=60) Passed**
- Older children demonstrated high rates of individuals with difficulty on Sentence Assembly and Word Classes Subtests
- Younger children did not have any elevated scores on their age-specific subtests
- All ages took subtests that assessed both working memory and syntax-many children had elevated percent error scores on these subtests

(Ciolino, In Progress)

Hyter & Ciolino (MSHA 2018)

CELF-5 Screening Test Results (Ciolino, In Progress)

Subtest	Ages assessed	Percent of participants with elevated percent error scores
Word Structure	5-8 yrs	n=6 (17.64%) had ≥56% error
Word Classes	5-8 yrs	n=5 (14.71%) had ≥60% error
Following Directions	5-21 yrs	n=31 (40.26%) had ≥60% error
Recalling Sentences	5-21 yrs	n=26 (33.33%) had ≥57% error
Sentence Assembly	9-21 yrs	n=28 (62.22%) had ≥50% error
Semantic Relationships	9-21 yrs	n=10 (22.22%) had ≥ 57% error
Word Classes (Second Version)	9-21 yrs	n=21 (46.67%) had ≥50% error

PP-R Results (Ciolino, In Progress)

PP-R Discourse subtest	Age assessed	% with z-scores ≤ -1.0	% Participants with difficulties
Conversation	5 to 15 yrs	16.39% n=10	<ul style="list-style-type: none"> • Quantity: 26.23% (n=16) • Relation: 26.98% (n=17) • Manner: 20.00% (n=13)
Narrative Retell	5 to 15 yrs	18.18% n=10	<ul style="list-style-type: none"> • Cohesion: 33.89% (n=20) • Coherence: 29.82% (n=17) • Landscape of Consciousness: 51.67% (n=31)
*Expository Discourse	9 to 15 yrs	22.22% n=4	<ul style="list-style-type: none"> • Content: 44.44% (n=8) • Structure: 42.11% (n=8) • Coherence: 52.63% (n=10)

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PP-R Perspective Taking subtest

PP-R Perspective Taking subtest	Age assessed	% of Participants with Impaired Scores
First Order Crayon Box Test (content)	4;0 to 6;6 yrs	28.57% (n=2)
First Order Ball Test (location)	4;0 to 6;0 yrs	50.00% (n=3)
First-Order Beliefs	6;7 to 15;0 yrs	22.38% (n=15)
Second-Order Beliefs	6;7 to 15;0 yrs	52.17% (n=36)
Strange Stories	9;0 to 15;0 yrs	9.52% (n=4) Additional Areas of Deficit : Sarcasm: 21.95% (n=9) Joking: 35.14% (n=13)

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Implications of Data Analyses for Future Assessments

Go Beyond Basic Screening Tests

- **Pragmatic assessments should include exams to measure:**
 - narratives
 - expository language
 - perspective taking
 - ability to identify communicative intentions
- **Syntax and Semantics assessments should include exams to analyze:**
 - Semantic Categorization and More Advanced Syntax
 - Working Memory + Syntax Tests
- **The effects of trauma on literacy, phonology, and phonemic awareness are still largely unknown**

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Angelique's Social Communication Profile

38

Angelique describes herself as...

- not being well-liked by her peers
- very honest and tells others exactly what she thinks because "that's the only way to be, honest."

She reported that ...

- She is "betrayed" every day by her friends and parents
- People play tricks on her and accuse her of stealing from them

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Angelique's Social Communication Profile Continued...

- Tells her friends what to do because she is "just smarter about some things than they are."
- She perceives that children her age do not like her because she is "very smart and [I] just know things that they don't know."
- she knows that she shouldn't be so honest with everyone but sometimes "words just pop" out of her mouth (Hyter, 2012).

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Right Hemisphere Language & Communication Skills

- World Knowledge
- Inferences
- Pragmatic Language & Social Communication
- Discourse Knowledge

Intervention

- **Include**
 - Executive Control
 - Attunement

Hyter, 2016; Steele, & Malchiodi (2016). Yehuda, 2016

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Intervention Recommendations

Department of Health and Human Services Administration of Children and Families (2015) calls on professionals to help survivors of maltreatment develop protective factors including...

- "Youth resilience"
- "Social connections"
- "Concrete support in times of need"
- "Cognitive and social-emotional competence in youth"

*** Educating other team members about the effects of complex trauma are critical in this process**

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Recommendations for Intervention Continued

- Provide intervention for pragmatic language, syntax, and executive functioning
- Help children build vocabulary words for emotions and use landscape of consciousness in narratives to share their traumatic experiences
- Collaborate with social workers and those treating trauma directly to help them create trauma narrative and complete other aspects of trauma-focused cognitive behavioral therapy

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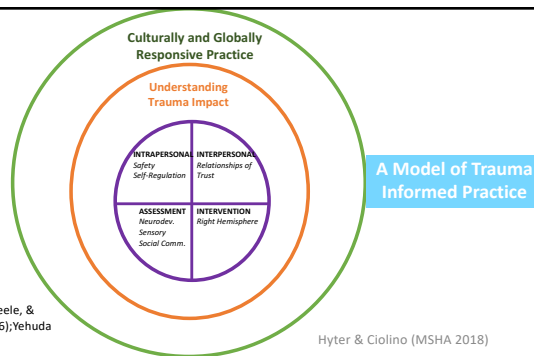
Intervention Considerations

- Intervention needs to take into account the holes that trauma rents in children's affective, relational, and communicative world (Yehuda, 2016, p. 185).
- Establishing safety – predictability
 - makes the child available for learning
- Reciprocity –
 - foundation for social connection, regulation, and learning (Yehuda, 2016, p. 187)
- Emotional States
- Causation & consequence
- Making predictions

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- Checking comprehension
- Narrative support
- Plan-do-review (Stanton-Chapman, Kaiser, Vijay, & Chapman, 2008; Stanton-Chapman, Denning, Roorbach, & Jamison, 2012)
 - Instruction
 - Practice in context
 - Review
- Language Processing, conversational skills, social understanding (Adams, Lockton, Galle, Gillian, & Freed, 2012)
 - 16 – 20 one hour long intervention sessions for 10 – 20 weeks
 - Modeling behavior, role play, modeling inappropriate behavior, role play

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Hyter, 2016; Steele, & Malchiodi (2016); Yehuda (2016)

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Importance of Language Intervention. . .

Children with trauma exposure have a significantly greater risk of...

- Mental illnesses
- Court Involvement
- Low academic achievement

Cecil, Viding, Barker, Guiney, & McCorry (2014); Greenson, et al., 2011; Ryan & Testa (2005); Shonk & Cicchetti, (2001)

Hyter & Ciolino (MSHA 2018)

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