Potential impact developmental trauma has on student functioning

The following information is based on research about developmental trauma and its impact on the overall functioning of students. It is important to know that every student has his/her own set of unique risk and promotive (protective) factors including environmental, genetic, culture, etc. that can mitigate or exacerbate the impact of toxic stress. Not all students who have experienced developmental trauma may undergo/exhibit the elements described below.

1. There is a significant discrepancy between verbal and performance IQ.
2. Difficulty with working memory.
3. Learning disabilities around language and processing
4. Do not have the neurobiological structure necessary to self-regulate emotions, behaviors and thoughts.
5. Between 50 and 90% of students who have experienced complex trauma have sleep disturbances.
   1. Sleep latency (difficulty falling asleep)
   2. Sleep disturbances (often awaken during REM sleep)
      1. Stage of sleep when we consolidate learning and memory from the day before.
6. Hypofrontality (underdeveloped prefrontal cortex).
   1. Often present as disruptive and unsettled in classrooms
   2. Corpus callosum (white matter tract between brain hemispheres) may not be as well developed.
7. Adverse experiences of children are converted to their neuroanatomy
8. Epigenetics – genes that may help with neurobiological injury as a result of complex trauma may not be expressed or “shut down.”
9. Relationally reactive or hostile attribution bias – perceive adults as dangerous
10. High resting heart rates (between 100 and 120 beats per minute)
11. Elevated levels of cortisol (steroid hormone released when stressed).
    1. Too much cortisol is toxic to brain development
12. Limbic system is over activated
    1. Inhibiting impulses with limbic system instead of cortex.
    2. ANS – sympathetic division of autonomic nervous system is over activated so kids are always scanning their environment for danger. Over activated flight, fight, freeze and flock response.
    3. Often perceive benign stimuli as dangerous
    4. Amygdala (measures intensity of experience) is over activated so hippocampus (helps evaluate and categorize information) is compromised. Makes it difficult to plan (Can’t access prefrontal cortex).
13. Reward neurobiology is impaired. Praise lasts less amount of time and has less intensity.
    1. Often difficult to create effective behavior plan
14. Hyperaroused and so pick up quickly on non-verbal communication (85% of all communication.
    1. As kids become more alarmed, their IQ’s drop. Negative correlation between arousal level (response to danger) and IQ.
    2. As they move along the arousal continuum, less able to process words. Responding to non-verbal cues (tone of voice, proximity, facial expression, etc.).

Remember, interventions DO work but they take time and consistency in implementation. Adults need to manage their own affect and responses as well as pay attention to their level of empathic distress to be effective with students who have experienced complex trauma.