Acronymns, Complexity, and TruValue Hardware

Having been in the neuroscience field spanning four decades, I am amazed by all the acronymns: MRI, ADHD, RAD, PTSD, PBD, ABC, LMNOP… Acronymns were really not a part of my formative years, growing up in a rural small town. I guess things just weren't that complicated. Mine was an simple childhood. I was loved by my parents—Ed and Juanita, and had a long-suffering older sister—Pam, who graciously endured my youthful hellionism. (In fact, my behavior was SO bad growing up, that it is a minor New Testament miracle I am not writing this piece from Cellblock C of state prison.) Anyway, I also had great kids to play with on Forrest Avenue, a local church that cared about me, and world-class adult role models. Oh, and there was steady work to be had at the local TruValue Hardware store.

In short, my needs were met.

So no need for acronymns or complexity.

But what do I do? Follow a career path smothered in acronymns and complexity. Go figure. Let's face it, in our field, Acronymns 'R Us. And complexity abounds.

And so it is regarding gestational alcohol/drug effects. For starters, three acronymns:

- **FAS (Fetal Alcohol Syndrome): the most severe form of in utero drug/alcohol effects, almost always showing the presence of facial characteristics, stunted growth, and/or mental retardation**
- **FAE (Fetal Alcohol Effects): a lesser severity of FAS, often with no outward physical manifestations or mental retardation**
- **FASD (Fetal Alcohol Spectrum Disorder): a catch-all category emcompassing both FAS and FAE, on a continuum**

In this article, I will primarily use FASD throughout; thus, you'll know that, in so doing, I am not making a distinction between the severity of effects suffered by a child who was exposed in the womb to drugs and/or alcohol—unless I directly allude to FAS or FAE.

Moreover, please don't be misled by the word, "alcohol," in the above distinctions. "Drugs" are implied in these acronyms as well. Unfortunately, experience has shown that when a pregnant mother consumes alcohol, the odds are huge that she is also using at least one form of illicit drug.

By way of recognizing FASD, it would be a mistake to solely rely upon facial dysmorphology in its diagnosis. In my experience, the vast majority of youth I treat do not display outward physical characteristics, at all. Rather, FASD youngsters more often than not reveal drug/alcohol-related brain compromise by way of cognitive and emotional disruption. If FASD only affected a child's facial features and undersized

physical stature, there would be only minimal impact upon the quality of his and the family's lives.

But, for youngsters suffering full bore FAS, what ARE some of the common physical manifestations?

- **Smaller physical stature (below the 10th percentile for age and race)**
- **Hydrocephalus (smaller brain size)**
- **Eyelid ptosis (drooping of the upper eyelids)**
- **Vermilion border (very thin upper lip)**
- **Flat philtrum (flatness of the typical groove above the upper lip)**
- **Narrow palpebral fissure (narrowing of the inner/outer corners of the eyes)**
- **"Hockey stick" palmar crease (upper crease in the hand's palm shaped like a hockey stick)**
- **Clinodactyly (permanent curving of the fifth finger, inward toward fourth finger)**
- **"Railroad track" ears (top curve of the ear, folded over, and parallel to the curve beneath it,**
  giving the appearance of a railroad track)

As I say though, the lion's share of struggles faced by youth with FASD are cognitive and emotional in nature. Far and away, the most commonly cited FASD-related cognitive feature is impaired attention and concentration. Thus, ADHD is almost always an FASD spin-off diagnosis. Moreover, ADHD then dominoes a child into emotionally related fall-out. If a kiddo struggles paying attention in school, what is the typical result? Right. His emotions are effected. He begins acting out in class due to frustration with keeping up with the teacher, becomes the class clown, etc.

FASD is also notorious for producing the following: impulsivity, poor judgement, faulty cause-and-effect thinking, flawed self-evaluation skills, impaired gratification delay, weak planning and sequencing abilities, along with hair-trigger ballistic episodes.

Another common result of FASD is a deleterious impact on intelligence. In utero drug and alcohol-
impacted youth, according to research, do not as a group test out as bright on IQ tests as do youngsters having emerged from non-toxic gestation.

Personally, I think of FASD's impact on the developing child in two ways. One, many youngsters—those with FAE—frequently show developmental <u>delays</u>. They might be slower to walk, talk, ride a bike, or read. It's not that they cannot achieve these skills; they just take longer to emerge. And it may be necessary to provide the youngster with a regimen of specialized help for a period of time—for example speech therapy over the course of a year or two—for a child with articulation struggles.

Contrariwise, amidst the more <u>severe</u> side of the FASD continuum—youngsters with FAS—certain developmental arrests occur. For example, children who suffer from

mental retardation (MR) often do not develop higher level academic skills, the ability to fully grasp cause-effect thinking, or engage in mature judgment/decision-making. Due to the severity of FAS, brain integrity has been impacted such that certain areas of development may not occur.

Unfortunately, FASD and the capacity for interpersonal attachment are inextricably linked. Why? Because a child's ability to bond with Mom and Dad is made possible by the integrity of certain brain structures.

So, if gestational exposure to drugs and alcohol compromise said brain structures, it makes logical sense that an affected youngster's ability to interpersonally attach becomes compromised. It is no coincidence that the proliferation of attachment disorders (AD) have accompanied the steady rise of FASD both in the U.S. and abroad.

Furthermore, mounting brain imaging research reveals that the domain of emotional regulation of a young child rests early on within the right hemisphere, especially a structure deep within that hemisphere (under the right temple region) called the amygdala. As I have discussed in previous columns, the amygdala is an almond-sized structure whose domain centers around survival fear. Therefore, prenatal exposure to drugs and alcohol can damage the ability of the right hemisphere's amygdala to effectively hardwire the brain. The result is a flawed capacity to cope with life stress.

Said another way, the infant's brain does not acquire the structural integrity to deal well with her emotions. Consequently, the child's CNS is in an almost perpetual state of fight or flight. Now, add postnatal trauma (abuse and neglect) to the already compromised right hemisphere of the neonate's brain, and the problem is merely compounded. (More complexity here, although I did manage to avoid any acronymns in this paragraph, except for one.)

Increasingly, we are learning that fear is the toxic X-Factor, the common denominator to all or most forms of psychopathology. As such, all too many orphans receive a double body-slam to their brains as a result of FASD plus early postnatal trauma. If a child's brain is in perpetual overdrive from fear, bonding and attachment to another human is a Vegas crap-shoot at best, short of effective treatment taking place.

As a matter of fact, in the next issue of *Connections* I'll discuss treatment options for FASD. And once again, my crusade for exposing evil acronymns for who they really are will continue. The same for complexity.

A pity everything can't just be straight-forward. We could all take some lessons from TruValue Hardware.