

Applying a Different Lens to Understand and Reduce Trauma, Prevent Violence

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Introduction

Violence (interpersonal, intimate partner, domestic, gun, suicide, homicide, police) is preventable [1-3]. The narrative and framework from which we understand violence must significantly shift to reduce violence of in all forms.

Circa 1990, a serious discussion about how to approach violence was birthed. Congress appropriated funds to support the endeavor of prevention. The Centers for Disease Control (CDC) received its first round of funding in the early 1990's for reducing youth violence, namely homicide rates. The CDC published "The Prevention of Youth Violence: A Framework for Community Action", which made a compelling argument for why violence should be viewed from a public health lens. Shortly thereafter, a myriad of violence-prevention programs was developed and implemented in schools and communities across the United States. Several evaluation studies arose from this work and were among the first randomized control trials to specifically assess the impact of programs on violence-related behaviors and injury outcomes. Consequently, it was established that significant reductions in aggressive and violent behavior were possible with applied, skill-based violence-prevention programs that addressed social, emotional, and behavioral competencies, as well as family environments [4,5].

Violence (homicide, suicide, interpersonal violence, intimate partner violence, gun violence) does not happen in a vacuum. There are multiple factors and circumstances that increase one's tendency towards aggression [4]. If prevention and breaking the cycle are the predominant goals, then violence must be understood in a larger social context to include but not limited to trauma and adverse childhood experiences [6].

Maslow's hierarchy of needs (1943) provides five interdependent levels of basic human need that must be met for any human being to thrive. Maslow contends that you cannot reach the acme of the hierarchy without addressing the foundation of the structure-it works most effectively from the bottom-up (Figure 1).

Careful analysis of the hierarchy reveals the bottom (also known as the foundation) to include the most basic of needs like food, water, shelter, air, warmth-termed physiological needs. Just above physiologic needs, there is safety to include physical and financial safety-termed security needs. The level above security is belonging, connectedness, family, love-termed social needs. The level above security is self-worth and accomplishment-termed esteem needs. At the peak of the hierarchy is self-awareness and personal growth-termed self-actualizing needs. Is propensity for violence or victimization connected to physiologic needs?

Disproportionate populations are experiencing grave poverty, racism, discrimination, trauma massive food and housing insecurity in this country, which compromises safety [7]. It is also understood that when basic needs are not met, the human tendency for survival kicks in and the motivation to get needs met by any means necessary can include exercising violent means, higher rates of substance use and deep emotional pain.

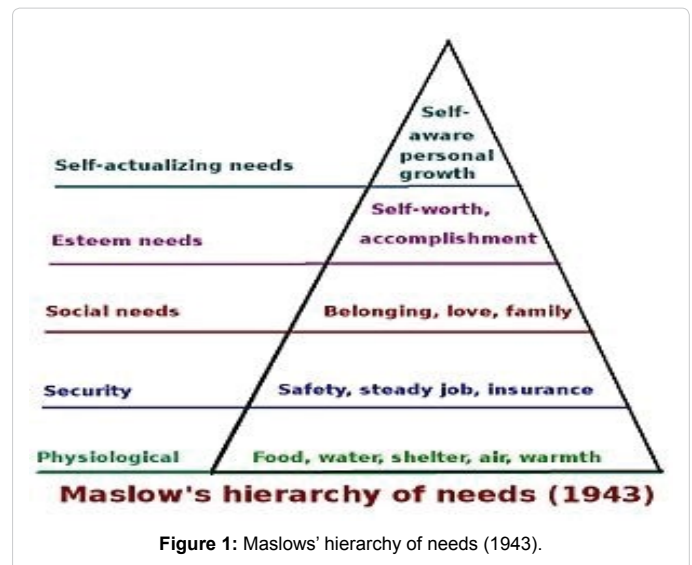


Figure 1: Maslows' hierarchy of needs (1943).

Psychology teaches us that all human beings have two fundamental desires-to be understood and to be connected. My working theory, supported by Maslow, is that aggressive behavior and drives are strongly influenced by "Unmet needs" which includes lack of connectedness (shaped by being understood), self-worth and belonging [8].

Felitti and Anda's 1998 Adverse Childhood Experiences Study (ACE's) took advantage of a pyramid structure similar to Maslow's hierarchy of need. At the base of the ACE's pyramid (Figure 2) is adverse childhood experiences, which happen in the context of unmet physiologic, security and social needs (trauma) as defined by Maslow's hierarchy [9]. Further along the ACE pyramid, there is disrupted brain development predominantly in the orbitofrontal, anterior cingulate cortex and amygdala resulting in social and emotional impairment.

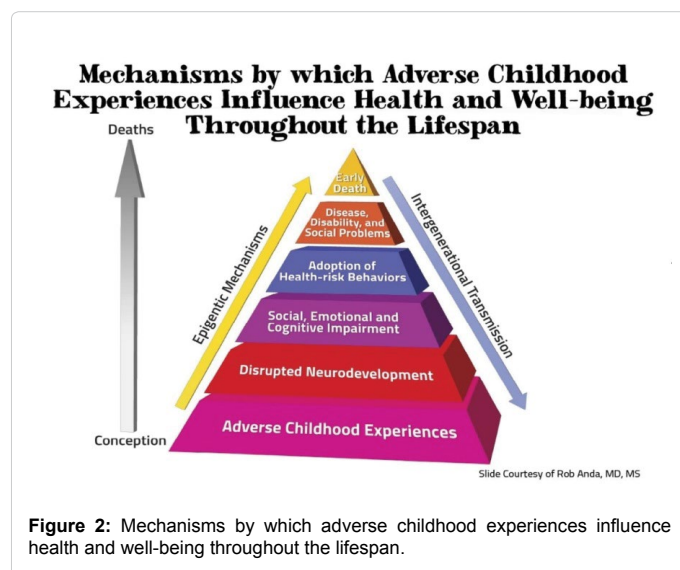
Neurobiologically, it is understood that all forms of trauma (events that result in toxic stress and triggering of fear response) can brain development [4], resulting in what is deemed "Bottom-survival brain" living [10]. The bottom part (amygdala, hippocampus, brain stem) of the brain is responsible for mediating the fear response, breathing, heart beating and unconscious responses. When individuals are

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operating in the bottom part of their brain (in survival mode), they are less likely to be able to access the top-cortical aspect of the brain responsible for exercising good judgment, control and regulation of emotion, personality expression, executive functioning, and empathy and impulse control. Therefore, adverse childhood experiences (trauma, neglect, poverty, racism, substance use, in-utero exposures, homelessness, exposure to prison culture/criminal justice system impacts the brain so profoundly [7,11,12].

Felitti and Anda's theoretical framework supports understanding on why cognitive, social and emotional impairment are predominant characteristics, leading to early adoption of health risks behaviors and diseases resulting in early death [6,9]. Felitti and Anda explained Maslow's social, psychological hierarchy in neurobiological terms. Both models explain the same phenomenon-self-actualization (realizing life and personal goals of success) is less likely to be attained if basic needs (as defined by Maslow's model) are not met [9].

The reframe here is to view violence and risks for violence from the lens of unmet need, unaddressed trauma, lack of connection and understanding. The following section outlines how unmet need, unaddressed trauma, lack of connection and understanding can be reframed to examine violence and associated risks.

Let's consider trauma and its connection to violence.

Interpersonal trauma can be experienced in different forms, including: child abuse (physical, sexual, and emotional abuse, neglect and witnessing violence), sexual assault/rape, intimate partner violence/domestic violence, war and historical trauma (the pervasive oppression and violence toward a group or culture over years and or generations).

Physiologically, trauma is stored in somatic memory (the body keeping the trauma score) and expressed as changes in the biological stress response [7,10]. Intense emotions at the time of trauma initiate the long-term conditional responses to reminders of the event, which are associated both with chronic alterations in the physiological stress response and with the amnesias and hyper amnesias characteristic of posttraumatic stress disorder (PTSD) [10].

Animal research suggests that intense emotional memories are processed outside of the hippocampal mediated memory system and are difficult to extinguish [10]. Cortical activity can inhibit the expression of sub cortically based emotional memories. The effectiveness of this

inhibition depends, in part, on the physiological arousal and neuro-hormonal activity [10]. These formulations have implications for both the psychotherapy and the pharmacotherapy of PTSD [10].

Violence is experienced as the failure of "Top-down" control systems in the prefrontal cortex to modulate aggressive acts that are triggered by anger provoking stimuli [4,10]. An imbalance between prefrontal regulatory influences and hyper-responsivity of the amygdala and other limbic regions involved in affective evaluation are implicated. Insufficient serotonergic facilitation of "Top-down" control, excessive catecholaminergic stimulation, and subcortical imbalances of glutamatergic/gabaminergic systems may contribute to abnormalities in this circuitry [10].

The temporal lobe and hyperactivity of the limbic system, including structures such as the amygdala, in response to negative or provocative stimuli, particularly anger provoking stimuli are also implicated in the susceptibility to violence and aggression [4,10].

Specific factors that increase the tendency for aggression include cognitive impairment, psychopathy, emotional sensitivity/dysregulation and trauma history.

One way to prevent and reduce violence over time is employing a trauma-informed approach [5,13,14]. Being trauma informed is the recognition that there is a neurobiological basis for trauma (explained above), creating safety, building trustworthiness and transparency, providing peer support, collaborating, empowering others and considering historical, cultural and gender influences in trauma.

Being trauma informed includes the following [15].

- Considering the pervasive impact of trauma and the paths for healing.
- Identifying the signs and symptoms of trauma in people.
- Establishing trauma informed policies through thoughtful integration of knowledge of trauma throughout.
- Preventing re-traumatization.
- Building empathy.
- Extending grace.
- Displaying kindness.
- Meeting folks where they are.
- Meeting basic needs.

According to Siever, when trauma is unaddressed it increases the risk of aggression and violence. Maslow, Felitti and Anda demonstrate the correlation between when basic needs are met, and the incidence of trauma is reduced, self-actualization is optimized, and early death is averted respectively [6,13].

According to Maslow, Felitti and Anda, when basic needs are met, trauma is addressed, and people feel connected and understood, the cortical aspect of the brain is re-engaged (providing some top-down control) and violent tendencies and risks decrease considerably [6,7,9].

Conclusions

This brief report began with statistics on all forms of violence and the caveat that violence is preventable. This report encourages the reader to view violence and risks for violence from the lens of unmet need, unaddressed trauma, lack of connection and understanding. Further

research to explore (or further) the potential of a trauma informed approach to preventing and reducing violence is warranted.

There are systems implications as trauma-informed approaches can be implemented in any type of service setting or organization and facilitate healing [13,15]. There are implications for preventing and reducing gun, domestic and interpersonal violence.

Trauma informed approaches assist with meeting the triple aims as outlined by the Accountable Care Act and Coordinated Care Organizations (ACA and CCO respectively) by reducing overall health care cost, improving outcomes for specific populations and improving care [16].

Violence is preventable. Perhaps stronger consideration and focusing on meeting “Unmet needs” and managing trauma by employing trauma informed approaches and practices is the key to eliminating violence of all forms.

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