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Language of violence: Do words matter more than we think?

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SUMMARY

Firearm violence is a leading cause of morbidity and mortality among young adults. Identification of intervention targets is crucial to developing and implementing effective prevention efforts. Hospital Violence Intervention Programs (HVIPs) have used a multiprong social care approach to mediate the cycle of interpersonal violence. One struggle continually encountered is how to change the conversation around the future. Speech patterns have been associated with health outcomes and overall behavior modification. During violence prevention efforts, young victims of violence say things such as 'I'm living on borrowed time' and 'why should I worry about getting an education when I'll likely die soon anyway?' Such speech patterns may contribute to the cycle of violence and increase the likelihood of reinjury. Presented is a narrative review of the impact language has on health outcomes and how psychotherapy may be able to change thought patterns, alter language structure, and ultimately reduce risk of reinjury.

The biopsychosocial model of health posits that a person's health is dictated by a combination of biological, psychological, and social factors. By understanding that language exists in the personal context, it can serve as both an indicator and a tool for targeted interventions. Cognitive–behavioral therapy (CBT) works by retraining thought and speech patterns to affect change in emotion, physiology, and behavior. It is proposed here that CBT could be used in the HVIPs' multidisciplinary case management model by involving trained psychotherapists. Language is an important indicator of a patient's psychological state and approach to life-changing decisions. As such, language alteration through CBT could potentially be used as a novel method of injury prevention. This concept has not before been explored in this setting and may be an effective supplement to HVIPs' success.

INTRODUCTION

Traumatic injury is more than breaking the human body. It can shatter the human mind of not only the patient, but also the healer. It can also damage communities and shape entire cultures. The authors posit that the chronic exposure to violence and the systemic health inequities resulting from structural violence have even changed the very foundation of communication: language. Presented is a narrative review that describes current violence prevention strategies, examines the impact that language can have on health outcomes, and outlines a novel approach to mitigating risky behavior by targeting language as a point of intervention.

The toll of interpersonal violence

Interpersonal violence is an umbrella term that encompasses assault, violent crime, and sexual violence. In 2019, homicide was the third leading cause of death and loss of years of productive life in individuals aged 15–34 years, with more than 1.5 million treated in emergency departments for assault-related injuries.[1] Individual risk factors that have been associated with violence are a lack of social and emotional skills, poor conflict resolution strategies, hopelessness, community/familial aggregate stress and trauma, and lack of self-regulation and self-love.[2] Exposure to violence especially at a young age is linked to decreased academic performance, increased sleep disturbances, poor general and cardiovascular health, increased incidence of inflammatory-related diseases, and increased incidence of substance use/abuse, illegal drug use, and future violent behavior.[3] When looking at firearm-specific injury, individuals are more likely to have daily pain, post-traumatic stress disorder, and worse physical and mental quality of life when compared with similarly injured motor vehicle crash victims.[4] Cumulative exposure to trauma and other negative life experiences can add to psychological burden, create toxic stress, and result in more severe depressive and post-traumatic stress symptoms.[5] Efficient prevention efforts seek to identify those most at risk of injury and intervene prior to the injury.

Current violence prevention strategies

Violence Intervention Programs (VIPs) provide critical services by attempting to break the cycle of violence experienced by interpersonal injury survivors. These programs enroll victims of violence as clients through organizations based either in the hospital or community, which can be described as hospital-based or hospital-linked, respectively. Notable flagship hospital-based programs include the Wraparound Program in San Francisco, Healing Hurt People in Philadelphia and Chicago, and Project Ujima in Milwaukee. Highly impactful hospital-linked programs include Acclivus (formerly CeaseFire/CureViolence) in Chicago and the 414Life Program in Milwaukee. Programs can also be a hybrid of both or completely community based. For the sake of inclusivity, a general term of Hospital VIPs (HVIPs) will be used acknowledging that involving the lived-experience experts matters more than where they are employed. At the hospital level, the basic model is a multiprong social care approach incorporating many disciplines including case management, social work, nursing staff, physicians, skilled therapists, and community-based

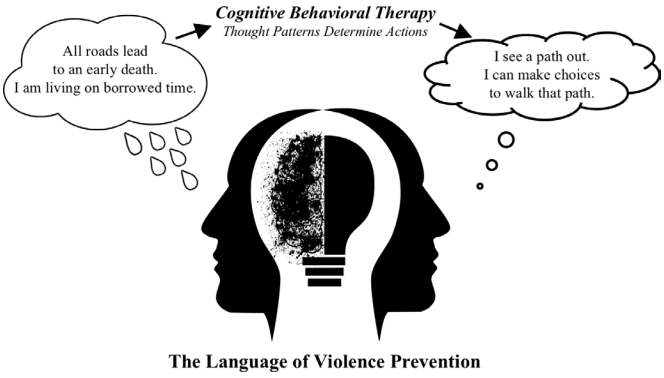

Figure 1 Cognitive–behavioral therapy may be able to increase levels of futured speech and mitigate risk-taking behaviors thus reducing recidivism.

violence intervention groups who all work to provide safe discharge planning, social services, and trauma-informed care. Upon hospital discharge, these violence prevention professionals provide ongoing case management that is predicated on cultural humility and the capacity to assist the client in addressing the social determinants of health and mental healthcare. Violence prevention professionals are the backbone of many social care trauma programs that not only shepherd people to critical resources that can address the root causes of violence but offer intangibles. This includes the ability to help informally shape dialogue with clients to focus on not only the present state of recovery, but also on hope for the future.

From the mouths of trauma patients

Healthcare providers are trained to pay keen attention to the verbal and non-verbal cues of patients as potential indicators of the environment outside of the examination room that may critically inform their health condition. As an example, if a partner cuts off the patient to give an explanation of an injury and will not leave the bedside, this could be a sign of intimate partner violence.[6] If a patient talks about being a burden to others and feeling trapped, this could indicate suicidal ideation.[7] In urban trauma centers with high rates of interpersonal violence, a repeating narrative is heard from patients: one of hopelessness and living on borrowed time. Patients say, "I should have been dead by now anyway, so why does it matter what I do?" and "I could be shot dead any second. Now is the only thing that matters." Psychological trauma often predisposes an individual to physical trauma and vice versa. Language can often be an indicator to the inner mindset of our patients. Traumatologists aim to provide comprehensive equitable care to trauma patients by integrating mental health and social care into trauma care.[8] Recognizing and addressing the widespread impact of the symptoms of trauma in patients is the first step to achieving this aim.

Language can both dictate and expose individual motivations, understanding, and belief in oneself

Self-perception and interaction with others are intimately and iteratively tied to verbal language. From the pronouns used to the formality of speech patterns, who a person is and who they wish to be inform and color their language. Further, the structure of language has been shown to affect behavior patterns such as saving money, smoking tobacco, and having risky sexual practices.[9]

The association between language and its insight into an individual's psychological state has been well described in the literature.[10 11] Emotional expression can be related to mental and physical health and can help regulate emotional and cognitive processing.[12] It can also be a marker of specific diagnoses. For example, individuals with depression have been found to use more negative emotion and first-person singular words than individuals who are not depressed.[13] Absolutist word use was found to be associated with anxiety, depression, and suicidal ideation.[14] The use of temporal focuses has also been found to moderate health outcomes. Patients with depression were found to attenuate the differences between past and present in personal narratives and demonstrate more rumination on past experiences rather than present or future speech patterns.[15] Furthermore, inability to generate positive future thinking was associated with depression and suicidal thoughts[16] and using words describing negative affect was found to be associated with using more past tense words.[17] Beyond psychological outcomes, this association between language and health has also been found to hold true in certain biologic markers. In a group of women with HIV, usage of the present or future tense in an autobiographical narrative was associated with having an undetectable viral load and having CD4+ cells above 350.[17] O'Donovan *et al* found that increased tendency toward pessimism is associated with shorter telomeres and higher levels of interleukin-6.[18]

These studies reveal that language can be an important indicator of patients' psychological state. This understanding can be potentially useful in improving the health of individuals harmed by trauma, specifically interpersonal violence. Trauma patients have some of the high rates of undiagnosed and untreated mental illness.[19] However, the language of the injured has only begun to be explored. Culyba *et al* showed that socially disadvantaged black youth who answered a future-oriented survey negatively were more likely to have instigated a weapon-related assault in the previous 9 months.[20] These findings were supported by a prior study that also showed an inverse correlation between future orientation and violent behavior in struggling high school students.[21] Finally, a study of African American adolescents exposed to community violence showed a gender difference in how future orientation related to delinquent and aggressive behaviors.[22] The discussions of these studies speculate that interventions seeking to improve future orientation for at-risk individuals may be effective prevention strategies for interpersonal violence. Given the novelty of this approach, it is clear that the relationship between futured thinking and interpersonal violence is far from defined.

Proposed new approach to injury prevention: change the language to inspire future orientation through cognitive–behavioral therapy

One cannot describe or seek to alter language without acknowledging and addressing the systemic, community, and individual factors that built a person's foundational language structure. It is now thought that the social determinants of health and environment combined affect 50% of an individual's health state.[23] These economic and sociodemographic factors are modifiable and can improve or detract from one's health state. The socioecological model of health is typically used to explain how structural violence and the social determinants of health are associated with violence. However, the authors propose a similar model to understand how patient language interacts with the cycle of violence that affects the recovery process of many violently injured patients. The biopsychosocial model of health posits that a person's health is dictated by a combination of biological, psychological, and social factors. Because language exists in the

personal context, it can serve as both an indicator and a tool for targeted interventions. Teasdale *et al* showed that an intervention for certain high-risk individuals with depression that focused on detaching from specific automatic dysfunctional cognitive (thinking/feeling) routines can prevent relapse.[24] Among patients receiving treatment for substance abuse, the overall use of negative emotion words decreased and positive emotion word use increased during a period of 9 months.[25] Cognitive processing is an important way of coping with stress and creating meaning after trauma, and providing care that targets an individual's language usage could begin to change beliefs.

Trauma prevention is thought to be about changing the conversation. The authors posit that the need is further to change the *language* of the conversation. Where Chen[9] found that futured language leads to an increase in risky behavior, it is hypothesized that patients may see no future to fear the consequences of their risk. How can belief in the future be inspired in those who are convinced it does not exist? This is especially difficult now. Healthcare is subsisting under a patchwork of bare-bone mental health services, and the pandemic has exacerbated the effects of structural violence.

Cognitive-behavioral therapy (CBT) is a highly validated psychotherapy technique founded on the principle that an individual's perception of events drives their emotions and behaviors. Prescriptive and iterative rewiring of thought patterns can chip away at destructive core beliefs, dysfunctional assumptions, and negative automatic thoughts.[26] CBT has been extensively shown to alter an individual's emotional state, physical symptoms, and behaviors. Although widely used in those with chronic diseases (cancer, immunocompromised state, obesity, etc) to reduce depression, anxiety, pain, and select for healthy behaviors,[27–29] CBT has not yet been used as a violence prevention technique. The presented data suggest that CBT may be effective in promoting future-oriented language, thus reducing risk-taking behaviors and reinjury rates. CBT may be particularly effective in helping individuals process the aforementioned structural and systemic disadvantages they face (figure 1).

Further investigations by the authors are planned to compare adding future-oriented CBT with standard HVIP interventions and follow change in the degree of future expressed in patients' speech patterns and objective measures of the overall health state (risk-taking behaviors, employment, financial security, etc). Correspondingly, the ability for someone to alter their language patterns may signal a receptiveness to other violence intervention strategies. The authors call for other injury prevention researchers to consider incorporating and evaluating future-oriented interventions into their strategies. This approach could be effective at both primary and secondary injury prevention, and based on the research cited here, may also improve the physical and mental outcomes for patients. It is critical to note, however, that inspiring future orientation is only a small part of the solution. A better future *must* be tangible and accessible. Funding pragmatic solutions to address structural barriers to such a future is essential.

CONCLUSION

Each patient is an opportunity. Traumatologists can either patch *holes* and send patients on their way, or providers can treat the *hole* and send patients into a better future. Now is the time to seek the next evolution in injury prevention—one where providers and patients work together to realize the future and eliminate the very language of violence.

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