



Victor Carrion

John A. Turner Endowed Professor for Child and Adolescent Psychiatry
Psychiatry and Behavioral Sciences

CLINICAL OFFICES

- **Child and Adolescent Psychiatry Clinic**

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Bio

BIO

Dr. Victor G. Carrion is the John A. Turner, M.D. Professor and Vice-Chair of Psychiatry and Behavioral Sciences at Stanford University and Director of the Stanford Early Life Stress and Pediatric Anxiety Program. He is in the faculty at both Stanford University School of Medicine and Lucile Packard Children's Hospital. His multidisciplinary research on the behavioral, academic, emotional, and biological late effects of experiencing trauma has led to the development and implementation of effective new interventions for treating children who experience traumatic stress. Using Posttraumatic Stress Disorder (PTSD) as an anchor, Dr. Carrion is investigating, through longitudinal studies, the effects of stress on developmental physiology and brain development and function.

Dr. Carrion has authored and developed the multi-modal intervention therapist guide, Cue-Centered Therapy for Youth Experiencing Posttraumatic Symptoms. Cue-Centered Therapy (CCT) is a psychosocial treatment approach for children and adolescents who have been exposed to chronic traumatic experiences. CCT derives its name from its focus on the conditioning process that results in sensitivity towards trauma-related cues. Additionally, he is the author of Neuroscience of Pediatric PTSD that examines the advances in the neuroscience of executive function, memory, emotional processing and associated features such as dissociation, self-injurious behaviors, and sleep regulation.

Dr. Carrion has published numerous peer-reviewed articles addressing the social, biological, and policy implications of violence and trauma in the lives of children. He has worked as an associate editor for the Journal of Traumatic Stress and has served as a reviewer for the National Institute of Mental Health and Mental Health and Behavioral Sciences Review Board of the Department of Veterans Affairs' Medical Research Service. His seminal findings identifying biological correlates of traumatic stress have been published in leading journals of the field such as Biological Psychiatry, Depression and Anxiety, Journal of Pediatric Psychology. Most recently, Dr. Carrion edited two published works from American Psychiatric Association titled, Assessing and Treating Youth Exposed to Traumatic Stress and Applied Mindfulness: Approaches in Mental Health for Children and Adolescents; both books serve as tools for clinicians that work with children, adolescents and transitional age youth who have experienced traumatic stress.

Dr. Carrion is a Co-Founder of the Center for Youth Wellness in San Francisco, where he served on the Board and chaired the Scientific Advisory Council. In 2011, Dr. Carrion was appointed by California's Senator-Elect Kamala Harris to the Mental Health Services Oversight and Accountability Commission of the State of

California, where he served as chair. Dr. Carrion has received awards from the American Academy of Child and Adolescent Psychiatry, the American Foundation for Suicide Prevention, the National Association for Research in Schizophrenia and Affective Disorders, the National Institute of Mental Health and the Silicon Valley Business Journal.

CLINICAL FOCUS

- Early Life Stress
- Brain Development
- Child and Adolescent Psychiatry

ACADEMIC APPOINTMENTS

- Professor - Med Center Line, Psychiatry and Behavioral Sciences
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

PROFESSIONAL EDUCATION

- Medical Education: Icahn School of Medicine at Mount Sinai (1991) NY
- Board Certification: Psychiatry, American Board of Psychiatry and Neurology (1996)
- Fellowship: Stanford University Child and Adolescent Psychiatry Fellowship (1997) CA
- Residency: University of Pennsylvania Health System (1995) PA
- Board Certification: Child and Adolescent Psychiatry, American Board of Psychiatry and Neurology (1999)
- Internship: University of Pennsylvania Health System (1992) PA

COMMUNITY AND INTERNATIONAL WORK

- Mental Health Services Oversight and Accountability Commission
- The Tipping Point Community
- Ravenswood Family Health Center, East Palo Alto, Menlo Park, Redwood City
- Center for Youth Wellness
- Student Mental Health Policy Workgroup

LINKS

- Early Life Stress and Pediatric Anxiety Program: <http://med.stanford.edu/elspap.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Examines the interplay between brain development and stress vulnerability via a multi-method approach that includes psychophysiology, neuroimaging, neuroendocrinology and phenomenology. Treatment development that focuses on individual and community-based interventions for stress related conditions in children and adolescents that experience traumatic stress.

Teaching

STANFORD ADVISEES

Med Scholar Project Advisor

Marija Kamceva

Publications

PUBLICATIONS

- **Measuring the Fidelity of a School-Based Yoga and Mindfulness Curriculum for Youth: A Transdisciplinary Feasibility Study** *CHILD & YOUTH CARE FORUM*
Espil, F. M., Rettger, J. P., Weems, C. F., Neill, E. L., Carrion, V. G.
2020
- **Anxiety and Stress Alter Decision-Making Dynamics and Causal Amygdala-Dorsolateral Prefrontal Cortex Circuits During Emotion Regulation in Children.** *Biological psychiatry*
Warren, S. L., Zhang, Y., Duberg, K., Mistry, P., Cai, W., Qin, S., Bostan, S. N., Padmanabhan, A., Carrion, V. G., Menon, V.
2020
- **Functional neuroanatomy of interoceptive processing in children and adolescents: a pilot study.** *Scientific reports*
Klabunde, M., Juszcak, H., Jordan, T., Baker, J. M., Bruno, J., Carrion, V., Reiss, A. L.
2019; 9 (1): 16184
- **Hyperdirect insula-basal-ganglia pathway and adult-like maturity of global brain responses predict inhibitory control in children.** *Nature communications*
Cai, W., Duberg, K., Padmanabhan, A., Rehert, R., Bradley, T., Carrion, V., Menon, V.
2019; 10 (1): 4798
- **Longitudinal changes in brain function associated with symptom improvement in youth with PTSD.** *Journal of psychiatric research*
Garrett, A., Cohen, J. A., Zack, S., Carrion, V., Jo, B., Blader, J., Rodriguez, A., Vanasse, T. J., Reiss, A. L., Agras, W. S.
2019; 114: 161–69
- **THE IMPORTANCE OF TRAUMA AND ADVERSITY IN THE TREATMENT OF CHILD PSYCHIATRIC DISORDERS**
Berkowitz, S., Carrion, V. G.
ELSEVIER SCIENCE INC.2018: S57–S58
- **Pediatric Posttraumatic Stress**
Altamirano, O., Carrion, V. G., Noll, J. G., Shalev
SPRINGER INTERNATIONAL PUBLISHING AG.2018: 71–88
- **The Network Structure of Posttraumatic Stress Symptoms in Children and Adolescents Exposed to Disasters** *JOURNAL OF THE AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY*
Russell, J. D., Neill, E. L., Carrion, V. G., Weems, C. F.
2017; 56 (8): 669–77
- **The moderating effects of sex on insula subdivision structure in youth with posttraumatic stress symptoms.** *Depression and anxiety*
Klabunde, M., Weems, C. F., Raman, M., Carrion, V. G.
2017; 34 (1): 51-58
- **Cue-Centered Therapy for Youth Experiencing Posttraumatic Symptoms- A Structured, Multi-Modal Intervention, Therapist Guide**
Carrión, V. G.
Oxford University Press.2016
- **Post-traumatic stress and age variation in amygdala volumes among youth exposed to trauma.** *Social cognitive and affective neuroscience*
Weems, C. F., Klabunde, M., Russell, J. D., Reiss, A. L., Carrión, V. G.
2015; 10 (12): 1661-1667
- **Child abuse, disruptive behavior disorders, depression, and salivary cortisol levels among institutionalized and community-residing boys in Mongolia** *ASIA-PACIFIC PSYCHIATRY*
Kohrt, B. A., Hruschka, D. J., Kohrt, H. E., Carrion, V. G., Waldman, I. D., Worthman, C. M.
2015; 7 (1): 7-19
- **Insula Measures and Emotional Cognitive Interplay in Youth with Post-Traumatic Stress Symptoms: Does Gender Matter?**
Carrion, V. G., Klabunde, M., Weems, C. F., Ramen, M., Reiss, A. L.

ELSEVIER SCIENCE INC.2014: 285S–286S

- **Integrated Behavioral Health Services: A Collaborative Care Model for Pediatric Patients in a Low-Income Setting** *CLINICAL PEDIATRICS*
Aguirre, J., Carrion, V. G.
2013; 52 (12): 1178-1180
- **Cue-Centered Treatment for Youth Exposed to Interpersonal Violence: A Randomized Controlled Trial** *JOURNAL OF TRAUMATIC STRESS*
Carrion, V. G., Kletter, H., Weems, C. F., Berry, R. R., Rettger, J. P.
2013; 26 (6): 654-662
- **Developmental Variation in Amygdala Volumes Among Children With Posttraumatic Stress** *DEVELOPMENTAL NEUROPSYCHOLOGY*
Weems, C. F., Scott, B. G., Russell, J. D., Reiss, A. L., Carrion, V. G.
2013; 38 (7): 481-495
- **Helping Children Exposed to War and Violence: Perspectives from an International Work Group on Interventions for Youth and Families** *CHILD & YOUTH CARE FORUM*
Kletter, H., Rialon, R. A., Laor, N., Brom, D., Pat-Horenczyk, R., Shaheen, M., Hamiel, D., Chemtob, C., Weems, C. F., Feinstein, C., Lieberman, A., Reicherter, D., Song, et al
2013; 42 (4): 371-388
- **Introduction to a Special Issue on Research with Youth Exposed to Disasters and Violence** *CHILD & YOUTH CARE FORUM*
Carrion, V. G., Weems, C. F.
2013; 42 (4): 257-259
- **A Prospective Study on the Association Between Caregiver Psychological Symptomatology and Symptom Clusters of Pediatric Posttraumatic Stress Disorder** *JOURNAL OF TRAUMATIC STRESS*
Wong, S. S., Kletter, H., Wong, Y., Carrion, V. G.
2013; 26 (3): 385-391
- **Sleep Disturbance in Pediatric PTSD: Current Findings and Future Directions.** *Journal of clinical sleep medicine*
Kovachy, B., O'Hara, R., Hawkins, N., Gershon, A., Primeau, M. M., Madej, J., Carrion, V.
2013; 9 (5): 501-510
- **Update on Neuroimaging and Cognitive Functioning in Maltreatment-Related Pediatric PTSD: Treatment Implications** *JOURNAL OF FAMILY VIOLENCE*
Carrion, V. G., Wong, S. S., Kletter, H.
2013; 28 (1): 53-61
- **Adverse childhood experiences among at-risk youth: The interrelation of ACES within a pediatric sample** *Journal of Child & Adolescent Trauma*
Scott, B. G., Burke, N. J., Weems, C. F., Hellman, J. L., Carrion, V. G.
2013
- **The interrelation of adverse childhood experiences within an at-risk pediatric sample** *Journal of Child & Adolescent Trauma*
G, S. B., J, B. N., F, W. C., L, H. J., G, C. V.
2013; 6: 217-229
- **Clinical Report: Psychological Maltreatment (vol 130, pg 372, 2012)** *PEDIATRICS*
Hibbard, R., BARLOW, J., MacMillan, H.
2012; 130 (4): 765-765
- **Can Traumatic Stress Alter the Brain? Understanding the Implications of Early Trauma on Brain Development and Learning** *JOURNAL OF ADOLESCENT HEALTH*
Carrion, V. G., Wong, S. S.
2012; 51 (2): S23-S28
- **Posttraumatic Stress Disorder Shifting Toward a Developmental Framework** *CHILD AND ADOLESCENT PSYCHIATRIC CLINICS OF NORTH AMERICA*
Carrion, V. G., Kleffer, H.
2012; 21 (3): 573-?
- **BRAIN ACTIVATION TO FACIAL EXPRESSIONS IN YOUTH WITH PTSD SYMPTOMS** *DEPRESSION AND ANXIETY*
Garrett, A. S., Carrion, V., Kletter, H., Karchemskiy, A., Weems, C. F., Reiss, A.

2012; 29 (5): 449-459

- **Development of a Child Psychopharmacology Trial Scale** *Current Psychopharmacology*
Wilkinson, J. M., Glick, I. D., Carrion, V. G.
2012; 1 (1): 9-13
- **Treatment of Traumatic Stress Disorder in Children and Adolescents** *Psychiatric Times*
Carrion, V. G., Kletter, H.
2012; 29: 1-8
- **The impact of adverse childhood experiences on an urban pediatric population** *CHILD ABUSE & NEGLECT*
Burke, N. J., Hellman, J. L., Scott, B. G., Weems, C. F., Carrion, V. G.
2011; 35 (6): 408-413
- **Reply to: Cortisol and Brain: Beyond the Hippocampus** *Biological Psychiatry*
Carrion, V. G., Weems, C. F., Richert, K., Hoffman, B. C., Reiss, A. L.
2011; 69 (4): e11
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Carrion, V. G., Weems, C. F., Richert, K., Hoffman, B. C., Reiss, A. L.
2010; 68 (5): 491-493
- **Natural disasters and the neurodevelopmental response to trauma in childhood: a brief overview and call to action** *FUTURE NEUROLOGY*
Carrion, V. G., Weems, C. F., Bradley, T.
2010; 5 (5): 667-74
- **Reduced Hippocampal Activity in Youth with Posttraumatic Stress Symptoms: An fMRI Study** *JOURNAL OF PEDIATRIC PSYCHOLOGY*
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- **Heightened Amygdala and Hippocampal Responsivity to Emotional Faces in Youth with Posttraumatic Stress Disorder Symptoms: An fMRI Study.**
Carrion, V. G., Garrett, A., Reiss, A. L.
ELSEVIER SCIENCE INC.2010: 119S
- **Treatment manual for trauma-exposed youth: case studies.** *Clinical child psychology and psychiatry*
Carrion, V. G., Hull, K.
2010; 15 (1): 27-38
- **Natural disasters and the neurodevelopmental response to trauma in childhood: a brief overview and call to action** *Future Neurology*
Carrion, V., Weems, C. F., Bradley, T.
2010; 5: 667-674
- **Converging evidence for abnormalities of the prefrontal cortex and evaluation of midsagittal structures in pediatric posttraumatic stress disorder: An MRI study** *PSYCHIATRY RESEARCH-NEUROIMAGING*
Carrion, V. G., Weems, C. F., Watson, C., Eliez, S., Menon, V., Reiss, A. L.
2009; 172 (3): 226-234
- **Brief Report: Diurnal Salivary Cortisol in Youth Clarifying the Nature of Posttraumatic Stress Dysregulation** *JOURNAL OF PEDIATRIC PSYCHOLOGY*
Weems, C. F., Carrion, V. G.
2009; 34 (4): 389-395
- **Guilt and posttraumatic stress symptoms in child victims of interpersonal violence.** *Clinical child psychology and psychiatry*
Kletter, H., Weems, C. F., Carrion, V. G.
2009; 14 (1): 71-83
- **Loss and the Experience of Emotional Distress in Childhood** *JOURNAL OF LOSS & TRAUMA*
Taylor, L. K., Weems, C. F., Costa, N. M., Carrion, V. G.
2009; 14 (1): 1-16
- **Posttraumatic stress symptoms and brain function during a response-inhibition task: An fMRI study in youth** *DEPRESSION AND ANXIETY*
Carrion, V. G., Garrett, A., Menon, V., Weems, C. F., Reiss, A. L.

2008; 25 (6): 514-526

- **The association between PTSD symptoms and salivary cortisol in youth: The role of time since the trauma** *JOURNAL OF TRAUMATIC STRESS*
Weems, C. F., Carrion, V. G.
2007; 20 (5): 903-907
- **Divalproex sodium for the treatment of PTSD and conduct disorder in youth: A pilot randomized controlled clinical trial** *CHILD PSYCHIATRY & HUMAN DEVELOPMENT*
Steiner, H., Saxena, K. S., Carrion, V., Khanzode, L. A., Silverman, M., Chang, K.
2007; 38 (3): 183-193
- **The psychosocial impact of Hurricane Katrina: Contextual differences in psychological symptoms, social support, and discrimination** *BEHAVIOUR RESEARCH AND THERAPY*
Weems, C. F., Watts, S. E., Marsee, M. A., Taylor, L. K., Costa, N. M., Cannon, M. F., Carrion, V. G., Pina, A. A.
2007; 45 (10): 2295-2306
- **State and trait emotions in delinquent adolescents** *CHILD PSYCHIATRY & HUMAN DEVELOPMENT*
Plattner, B., Karnik, N., Jo, B., Hall, R. E., Schallauer, A., Carrion, V., Feucht, M., Steiner, H.
2007; 38 (2): 155-169
- **Stressing about posttraumatic stress disorder - In reply** *PEDIATRICS*
Carrion, V. G., Weems, C. F., Reiss, A. L.
2007; 120 (1): 234-35
- **Stress predicts brain changes in children: A pilot longitudinal study on youth stress, posttraumatic stress disorder, and the hippocampus** *PEDIATRICS*
Carrion, V. G., Weems, C. F., Reiss, A. L.
2007; 119 (3): 509-516
- **Verbal declarative memory in pediatric PTSD: An fMRI study**
Carrion, V. G., Wagner, C., Garrett, A., Reiss, A. L.
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- **IQ and posttraumatic stress symptoms in children exposed to interpersonal violence** *CHILD PSYCHIATRY & HUMAN DEVELOPMENT*
Saltzman, K. M., Weems, C. F., Carrion, V. G.
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- **Mixed lateral preference in posttraumatic stress disorder** *JOURNAL OF NERVOUS AND MENTAL DISEASE*
Saltzman, K. M., Weems, C. F., Reiss, A. L., Carrion, V. G.
2006; 194 (2): 142-144
- **Regional differences of the prefrontal cortex in pediatric PTSD: an MRI study** *DEPRESSION AND ANXIETY*
Richert, K. A., Carrion, V. G., Karchemskiy, A., Reiss, A. L.
2006; 23 (1): 17-25
- **Development of anxiety disorders in a traumatized pediatric population: A preliminary longitudinal evaluation** *CHILD ABUSE & NEGLECT*
Cortes, A. M., Saltzman, K. M., Weems, C. F., Regnault, H. P., Reiss, A. L., Carrion, V. G.
2005; 29 (8): 905-914
- **Relationships of dissociation and childhood abuse and neglect with heart rate in delinquent adolescents** *JOURNAL OF TRAUMATIC STRESS*
Koopman, C., Carrion, V., Butler, L. D., Sudhakar, S., Palmer, L., Steiner, H.
2004; 17 (1): 47-54
- **An ecological-transactional model of significant risk factors for child psychopathology in outer Mongolia** *CHILD PSYCHIATRY & HUMAN DEVELOPMENT*
Kohrt, H. E., Kohrt, B. A., Waldman, I., Saltzman, K., Carrion, V. G.
2004; 35 (2): 163-181
- **Pathways to dissociation: Intrafamilial versus extrafamilial trauma in juvenile delinquents** *JOURNAL OF NERVOUS AND MENTAL DISEASE*
Plattner, B., Silvermann, M. A., Redlich, A. D., Carrion, V. G., Feucht, M., Friedrich, M. H., Steiner, H.
2003; 191 (12): 781-788

- **Dissociative symptoms in posttraumatic stress disorder: diagnosis and treatment** *CHILD AND ADOLESCENT PSYCHIATRIC CLINICS OF NORTH AMERICA*
Steiner, H., Carrion, V., Plattner, B., Koopman, C.
2003; 12 (2): 231-?
- **A prospective test of the association between hyperarousal and emotional numbing in youth with a history of traumatic stress** *JOURNAL OF CLINICAL CHILD AND ADOLESCENT PSYCHOLOGY*
Weems, C. F., Saltzman, K. M., Reiss, A. L., Carrion, V. G.
2003; 32 (1): 166-171
- **The treatment of separation anxiety disorder employing attachment theory and cognitive behavior therapy techniques** *Clin Case Studies*
Weems CF, Carrion VG
2003; 2 (3): 188-198
- **Diurnal salivary cortisol in pediatric posttraumatic stress disorder** *BIOLOGICAL PSYCHIATRY*
Carrion, V. G., Weems, C. F., Ray, R. D., Glaser, B., Hessl, D., Reiss, A. L.
2002; 51 (7): 575-582
- **Toward an empirical definition of pediatric PTSD: The phenomenology of PTSD symptoms in youth** *JOURNAL OF THE AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY*
Carrion, V. G., Weems, C. F., Ray, R., Reiss, A. L.
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- **Attenuation of frontal asymmetry in pediatric posttraumatic stress disorder** *BIOLOGICAL PSYCHIATRY*
Carrion, V. G., Weems, C. F., Eliez, S., Patwardhan, A., BROWN, W., Ray, R. D., Reiss, A. L.
2001; 50 (12): 943-951
- **Trauma and dissociation in delinquent adolescents** *JOURNAL OF THE AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY*
Carrion, V. G., Steiner, H.
2000; 39 (3): 353-359
- **The coming out process: developmental stages for sexual minority youth** *Clin Child Psychol and Psychiatry*
Carrion VG, Lock J
1997; 2 (3): 369-377
- **NALTREXONE FOR THE TREATMENT OF TRICHOTILLOMANIA - A CASE-REPORT** *JOURNAL OF CLINICAL PSYCHOPHARMACOLOGY*
Carrion, V. G.
1995; 15 (6): 444-445
- **ROADBLOCKS TO DO-NOT-RESUSCITATE ORDERS - A STUDY IN POLICY IMPLEMENTATION** *ARCHIVES OF INTERNAL MEDICINE*
Paris, B. E., Carrion, V. G., Meditch, J. S., Capello, C. F., Mulvihill, M. N.
1993; 153 (14): 1689-1695