difficulties, which often contribute to the chronicity of this disorder and negatively affect treatment outcomes. In the current study, we employed a novel 'symptomics' approach to identifying how individual PTSD symptoms related to attachment styles in World Trade Center (WTC) responders and survivors with PTSD participating in an ongoing trial of two web-based psychotherapies.

Methods: Data were analyzed from 86 treatment-seeking WTC responders and survivors with full or subthreshold PTSD. WTC-related PTSD symptoms were assessed using the PTSD Checklist for DSM-5 and attachment style using the Relationship Questionnaire (RQ). Relative importance analyses were conducted to compute the relative importance of each DSM-5 PTSD symptom in predicting attachment styles.

Results: Lower physical reactivity to trauma reminders (relative variance explained [RVE]=17.0%) and sleep difficulties (15.1%) were most strongly related to a secure attachment style; greater feelings of isolation from others (15.1%) and physical reactivity to trauma (13.4%) to a fearful/avoidant style; greater concentration difficulties (13.9%) and feelings of isolation from others (11.2%) to an anxious/preoccupied style; and greater hypervigilance (21.9%) and avoidance of trauma-related thoughts/feelings (11.1%) to an avoidant/dismissive style.

Conclusions: Individual PTSD symptoms were differentially associated with attachment styles in treatment-seeking WTC responders and survivors. A 'symptomics' approach to elucidating how PTSD symptoms contribute to attachment styles may help inform the personalization of PTSD treatments to address interpersonal difficulties in trauma survivors.

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Keywords: PTSD, Symptomics, Attachment Style, World Trade Center responders

Pain in the Immediate Aftermath of Sexual Assault and its Relationship to Physical Trauma During Assault

Carol Tran[1], Emma Kleemann[1], Andrew S. Tungate[1], Kristen D. Witkemper[1], Megan Lechner[2], Kathy Bell[3], Jenny Black[4], Jennie A. Buchanan[5], Rhiannon Reese[6], Jeffrey D. Ho[7], Gordon D. Reed[8], Israel Liberzon[9], Sheila A.M. Rauch[10], Ronald C. Kessler[11], and Samuel A. McLean[1]

[1]Institute for Trauma Recovery, School of Medicine, University of North Carolina, Chapel Hill, [2]UCHealth Memorial Hospital, [3]Tulsa Forensic Nursing Services, Tulsa Police Department, [4]Austin SAFE, [5]Department of Emergency Medicine, Denver Health, [6]Crisis Center of Birmingham, [7]Hennepin Healthcare, [8]Department of Emergency Medicine, Christiana Care, [9]College of Medicine, Texas A&M University, [10]School of Medicine, Emory University, [11]Harvard Medical School

Background: During the 20th century, it was recognized that re-experiencing, hyperarousal, and avoidance symptoms frequently develop in traumatic stress survivors and are unrelated to tissue trauma. Increasing evidence indicates that pain is another such stress-related disorder.

Methods: Adult women sexual assault (SA) survivors (n=706) presenting for care within 72 hours of assault were enrolled. The location and severity (0-10 numeric scale) of pain in each body region were assessed at presentation, one-week, and six-weeks. At one-week follow-up, pain during the week prior to SA was also assessed. Pain $\geq$ 4 was defined as moderate/severe, clinically significant new or worsening pain (CSNWP) in a body region was defined as pain $\geq$ 2-points greater than reported pre-assault.

Results: Moderate/severe pain was present in 500/701 (71%), 418/687 (61%), and 257/619 (42%) of SA survivors at presentation, one week, and six weeks, respectively. CSNWP in one or more body regions was present in 622/699 (89%), 595/697 (85%), and 409/627 (65%) at presentation, one week, and six weeks, respectively. The most common regions of CSNWP at six weeks were the neck (29%), lower back (28%), and head and face (25%). CNSWP in $\geq$3 regions was present one week and six weeks after SA in 418 (62%) and 232 (38%), respectively. Among women conscious throughout SA (n=419), only 366/1252(29%) and 205/769(27%) of regions with pain were areas in which trauma was reported by history or identified by physical exam, respectively.

Conclusions: Pain after SA is a posttraumatic stress disorder.

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Keywords: Sexual Assault, Acute Pain, Chronic Pain, Trauma

Patterns of Altered Resting State Functional Connectivity in Klinefelter's Syndrome (47, XXY)

Ethan Whitman[1], Siyuan Liu[1], Allysa Warling[1], Kathleen Wilson[1], Ajay Nadig[1], Cassidy McDermott[1], Liv Clasen[1], Jonathan Blumenthal[1], Francois Lalonde[1], Stephen Gotts[2], Alex Martin[2], and Armin Raznahan[1]

[1]Developmental Neurogenomics Unit, Human Genetics Branch, National Institute of Mental Health, [2]Section on Cognitive Neuropsychology, Laboratory of Brain and Cognition, National Institute of Mental Health

Background: Structural neuroimaging studies in Klinefelter's Syndrome (KS) have revealed a reproducible pattern of anatomical alterations centered on parietal and temporal cortices. However, potential differences in functional brain architecture in KS are not known.

Methods: We conducted resting state functional magnetic resonance imaging on a cohort of individuals with KS (N = 51, ages 7-25y, mean age 17.1) and karyotypically normal male controls (N = 67, ages 7-24y, mean age 16.5). We used a data-driven approach to calculate voxel-wise whole-brain connectivity and determine group differences in this metric throughout the brain. Areas of significant group difference were then treated as seeds to identify the regions to which they showed altered functional connectivity (FC) in participants with XXY syndrome relative to XY controls.

Results: The KS group showed significantly increased global connectivity in the right cerebellum. Abnormal cerebellar global connectivity in XXY syndrome was driven by aberrant increase in connectivity between the cerebellum and a distributed set of cortical regions including bilateral dorsolateral prefrontal