HIV Trauma Syndemic

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Introduction

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- Adjunct Assistant Professor of Human and Organizational Development
  - Health Service Delivery to Diverse Populations

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Objectives/agenda

- Define trauma and trauma response
  - Explore neuro-biological effects
  - Explore how trauma impacts people living with HIV

- Explore the mechanisms reinforcing the HIV trauma syndemic

- Review efforts to attenuate the HIV trauma syndemic
  - Trauma-informed HIV care
  - Resilience-focused care via the socio-ecological model of health
  - Local, regional, and national

- Conclusions
  - Principles, domains, and benefits of interventions
  - Importance of continuous quality improvement

- Questions

What is trauma?

Big T "Trauma"

- ☐ Result of [series of] event(s) experienced as physically or emotionally harmful or threatening AND there are lasting adverse effects on physical, social, emotional, or spiritual well-being (neuro-biological impairment)

- ☐ Natural: tornadoes, earthquakes, hurricane, tsunami, pandemic

- ☐ Human-design: Intimate Partner Violence, developmental, Adverse childhood experiences, political terror and war, diaspora (refugees), historical/ structural/institutional

- ☐ Primary, secondary, vicarious

Chronic or compounded little t "trauma"

- ☐ Chronic stress, toxic stress, historical/institutional microaggression

- ☐ ACEs and adult exposure

- ☐ The three E's: Events, experience, and effect
  - ☐ For what, how long, and how much?

- ☐ Love, work, and play

What is trauma?

- Type I Trauma:
  - Usually sudden and unexpected
  - Often not of human design (MVA, house fire, [but can be sexual assault and interpersonal violence], natural disaster, medical procedure)

- Type II Trauma:
  - Expected
  - Ongoing
  - Usually of human design (abuse, combat, captivity, chronic illness or caring for chronically ill)

Terr (1992)

Developmental Trauma

- Usually a combination of Type I and II

- Occurs during formative years: birth through early adulthood

- Establishes enduring neuronal pathways: *neurons that fire together wire together*

- Cumulative and synergistic

- Results in much higher risk for:
  - Vulnerability to subsequent trauma
  - Altered sense of identity, volition, time, perspective
  - Physical illnesses
    - Respiratory (asthma, COPD)
    - Musculoskeletal (fibromyalgia, disc injury)
    - Digestive (ulcers, ulcerative colitis)
    - Endocrine (diabetes)
    - Neoplasms

How trauma response shows up

- Emotional responses
  - Shock, numbness, anxiety, panic, fear, feelings of aloneness, hopelessness, helplessness, uncertainty, horror, irritability, depression, grief, and guilt.

- Cognitive responses
  - Impaired concentration, confusion, disorientation, difficulty making a decision, shortened attention span, forgetfulness.

- Behavioral Responses
  - Withdrawal, noncommunication, erratic or repetitive movements (pacing, impulsivity, exaggerated startle response, increased anti-social and high risk behaviors, self-medication via substances

- Reported Feelings
  - Increased sense of vulnerability, more frequent blaming of self and others, lowered self-efficacy, loss of control,, and a heightened state of hypervigiilance, internally recounting event.

- Decompensation/abreaction

- Physiological responses

Dass-Brailsford (2007). Pg. 33

DSM-5 trauma and stressor-related disorders

- Reactive attachment disorder

- Disinhibited social engagement disorder

- Posttraumatic stress disorder
  - With dissociative symptoms with either
    - Depersonalization (detached from body)
    - Derealization (dreamlike)

- Acute stress disorder

- Adjustment disorders

- Other specified and unspecified trauma and stressor-related disorder

Posttraumatic Stress symptoms
1) Re-experiencing/intrusion, 2) avoidance, 3) negative cognition/moods, (also numbing), and 4) hyperarousal/reactivity
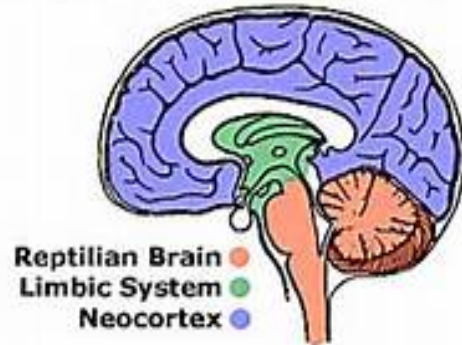
Intrusions

➢ Recurrent, involuntary memories

➢ nightmares

➢ Dissociative reactions (flashbacks), "losing" time/going away/blanking out, loss of consciousness,

➢ intense or prolonged distress after exposure to traumatic reminders

➢ physiologic reactivity after exposure to trauma-related stimuli

Avoidance

➢ Persistent efforts to avoid reminders of traumatic events; often subconscious and automatic

➢ trauma-related thoughts and feelings

➢ trauma-related external reminders (e.g. people, places, conversations, events, objects, environments, situations)

Brain organization

The Evolution-Designed Brain

Reptilian Brain
Limbic System
Neocortex

momentous institute

UPSTAIRS BRAIN — THINKING, BODY CONTROL, PLAY, EMPATHY
DOWNSTAIRS BRAIN — BREATHING, FIGHT or FLIGHT

Concept from The Whole-Brain Child
by Dr. Dan Siegel and Dr. Tina Payne Bryson

Proto-Reptilian: emotional brain
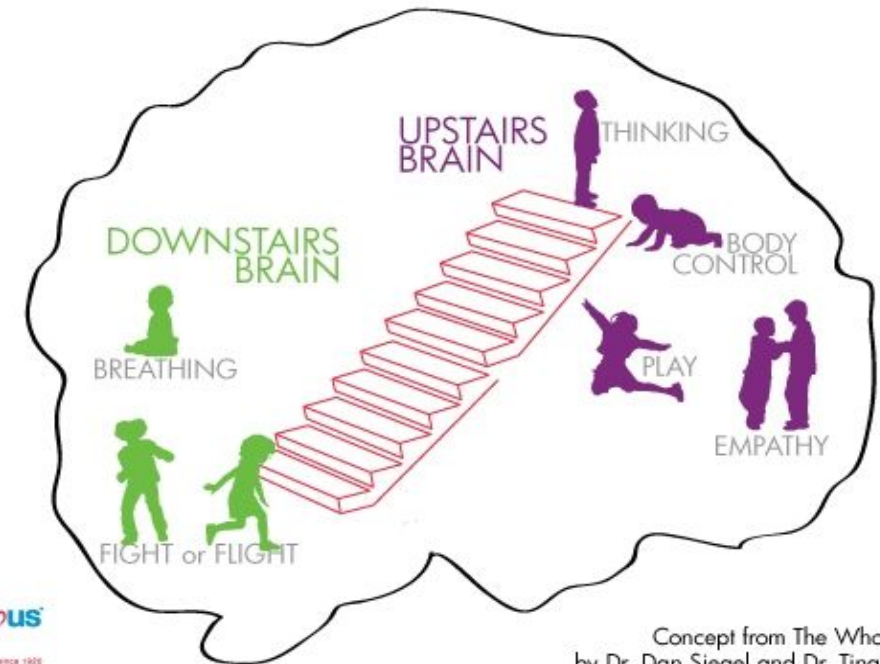   Four f's (feeding, fighting, fleeing, …)
Paleomammalian (limbic system): emotional brain
    Emotion, motivation, categorization, learning and memory, perception
Neomammilian: rational brain
    Neocortex
        Complex stimulus analysis, learned motor control, abstract and rational thought

Neuro-biological Trauma Response

- The experience of being overwhelmed

- Demands exceed resources cognitively, emotionally and physically

- Aspects of experience remain sequestered in right hemisphere
  - Left hemisphere/ left Prefrontal cortex goes off line (experience is coded without language or time, or deeply impoverished)
    - instead gets coded in right hemisphere (without speech) as icon or image, emotions

- Always involves dysregulation
  - Disrupts attention/narrows focus

- Cost: we don't get integration but fragmentation
  - Affects all spheres, e.g. mental, physical, emotional
    - Don't have any language
  - Sense of time
    - Remembered non-verbally and emotions, icons and images and body sensations (anxiety, hyper vigilance, hyper startle)
  - Causes acute or chronic fatigue (this robs system of managing day to day tasks)

Trauma and HIV: prevalence

- >70% of people living with HIV will have two or more lifetime traumatic experiences
  - 20 times more likely to have experienced trauma than HIV-negative counterpart
  - About 47%, of those will develop PTSD (6% in general population)

- About 30% of PLWH have experienced child abuse (physical and sexual) before age 13

- Of PLWH, percentage who have experienced intimate partner violence
  - 68-95% of women
  - 68-77% of men
  - 93% of transgender individuals with HIV

- Sexual assault after age 15 experienced by up to 68% of women and 35% of men
  - Up to 80% had two or more experiences (average of 10 events)

- Sexual assault between ages of 7 and 15, 32% of women and 47% of men

(Keuroghlian, 2017; Pence, 2009; Whetten, 2008)

Intersectionality of trauma

- LGBTQI individuals experience higher rates of trauma

- The most common types are hate violence, intimate partner violence, and sexual assault
  - LGBTQI individuals are twice as likely to experience hate crimes
  - Prevalence of IPV is greatest for bisexual women (56.9%) and lesbian women (40.4%)
  - Prevalence of IPV among transgender individuals ranges from 24-47%

- Other forms of trauma among LGBTQI populations include:
  - Lack of access to healthcare
  - Family disconnection/abandonment
  - Socio-cultural adversity (hetero-normative society)
  - Child sexual abuse
  - Historical trauma

- Racial discrimination as trauma

Ellis, A.E. (n.d.). Trauma and Posttraumatic Stress Disorder in Lesbian, Gay, Bisexual, Transgendered, and Queer Individuals. Trauma Psychology. *American Psychological Association*. Division 56.

Mechanisms of the HIV Trauma syndemic

- Complex and multidirectional
  - increased traumatic exposure increases the likelihood for HIV acquisition
  - AND living with HIV increases the likelihood for increased traumatic exposure.

- HIV-specific contributors
  - Diagnosis itself, long-term associated threat to life, and stigmatization

- Some explanations
  - Traumatic experiences are cumulative and can lead to
    - Impaired immune system functioning from high Allostatic load (physical health comorbidities)
    - Mental health and substance use struggles (depression, anxiety, borderline personality disorder, internalized stigma)
    - Poor medication adherence or thwarted medication effectiveness
    - Barriers to care
      - Mental and physical sequelae cumulatively work to thwart health-seeking behaviors and increase risky behaviors including risk sexual behavior, decreased engagement and adherence along the HIV continuum of care

Consequences of HIV trauma syndemic

- Consequences
  - Increased likelihood for further trauma and abuse
  - High PTSD rates
  - Worse health outcomes
  - Accelerated disease progression
  - Worse epidemic

Significance

The HIV epidemic disproportionately impacts the southern United States.

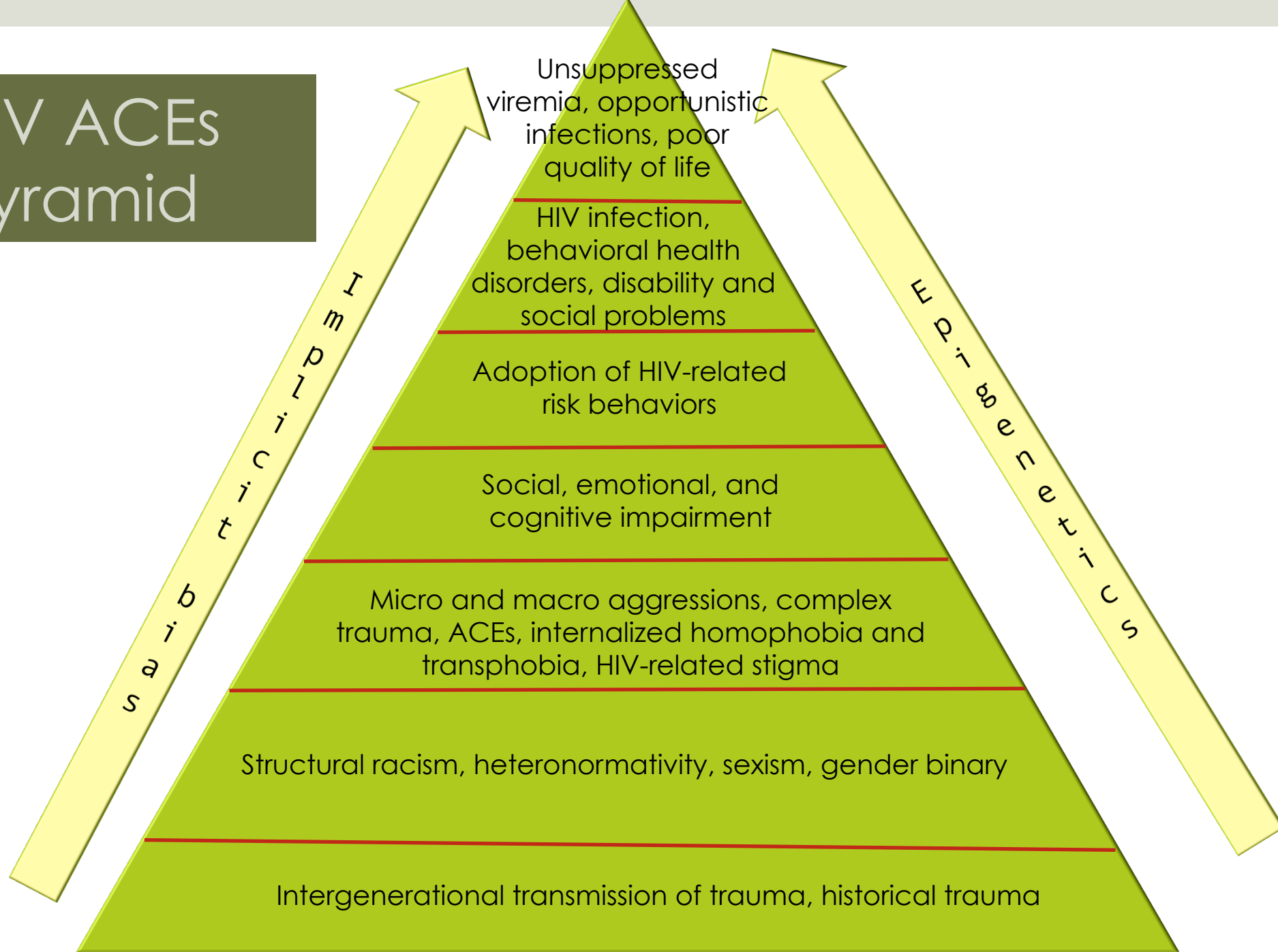Viral suppression rates lag at 46% in the Nashville TGA

HIV-Trauma link

If 95% viral suppression will be achieved, innovative techniques are needed to address drivers of health disparities.

The link between HIV and psychological trauma is robust yet under-addressed.

HIV ACEs pyramid

Implicit bias

Epigenetics

Unsuppressed viremia, opportunistic infections, poor quality of life

HIV infection, behavioral health disorders, disability and social problems

Adoption of HIV-related risk behaviors

Social, emotional, and cognitive impairment

Micro and macro aggressions, complex trauma, ACEs, internalized homophobia and transphobia, HIV-related stigma

Structural racism, heteronormativity, sexism, gender binary

Intergenerational transmission of trauma, historical trauma

NASTAD (2018)

Efforts to attenuate the HIV trauma syndemic

Efforts to address the HIV trauma syndemic

- Limited info on trauma-related determinants of poor health in PLWH in the southern U.S.

- Almost all in U.S. focus on individual-level change
  - Multi-level interventions mostly on prevention

- Narrow focus on one trauma type in a specific population rather than cumulative/intersectional trauma response

- None tailored to the needs of CBO's

- None addressing historical trauma in PLWH

- Call for more mixed methods research, in general, to investigate the role of historical trauma among minorities

What is Trauma informed HIV care (TIC)?

- A program, organization, or system that is trauma-informed
  - A paradigm shift
  - Requires on-going maintenance, training, attention and intentionality
  - Requires systemic adoption

- SAMHSA's four main assumptions of TIC:
  - Improved awareness or "**realization**" of trauma for all individuals involved in the organization;
  - Acquired knowledge on how to "**recognize**" the signs of trauma
  - The organization creates a unified "**response**" by applying TIC approach to all areas of agency operation
  - By adopting the TIC approach, the agency seeks to "**resist re-traumatization**" of clients and staff members

SAMHSA (2014)

Six key principles of TIC

1. **SAFETY**
   - Physical and psychological
   - Safety as defined by those served

2. **TRUSTWORTHINESS AND TRANSPARENCY**
   - Agency operations and decisions are conducted with transparency as a means for building trustworthiness and transparency throughout agency

3. **PEER SUPPORT**
   - Trauma-peer support and mutual self-help facilitate the cultivation of safety and trustworthiness

4. **COLLABORATION AND MUTUALITY**
   - Emphasis on leveling power differentials between staff and clients and among organization staff
   - Everyone has a role to play; one does not have to be a therapist to be therapeutic

5. **EMPOWERMENT, VOICE AND CHOICE**
   - The organization fosters a belief in the resilience of clients and their ability to heal and recover from trauma
     - Recognizing clients have often had their voices and choices diminished, clients are supported in shared decision-making
     - All individuals' strengths and experiences are recognized and built upon

6. **CULTURAL, HISTORICAL, AND GENDER ISSUES**
   - The agency moves past cultural stereotypes and biases by incorporating policies, protocols and processes responsive to racial, ethnic and cultural needs of individuals served and recognizes and addresses historical trauma

Ten Implementation Domains

1. Governance and Leadership

2. Policy

3. Physical Environment

4. Engagement and involvement

5. Cross Sector Collaboration

6. Screening, Assessment, Treatment Services

7. Training and Workforce Development

8. Progress Monitoring and Quality Assurance

9. Financing

10. Evaluation

SAMHSA (2014)

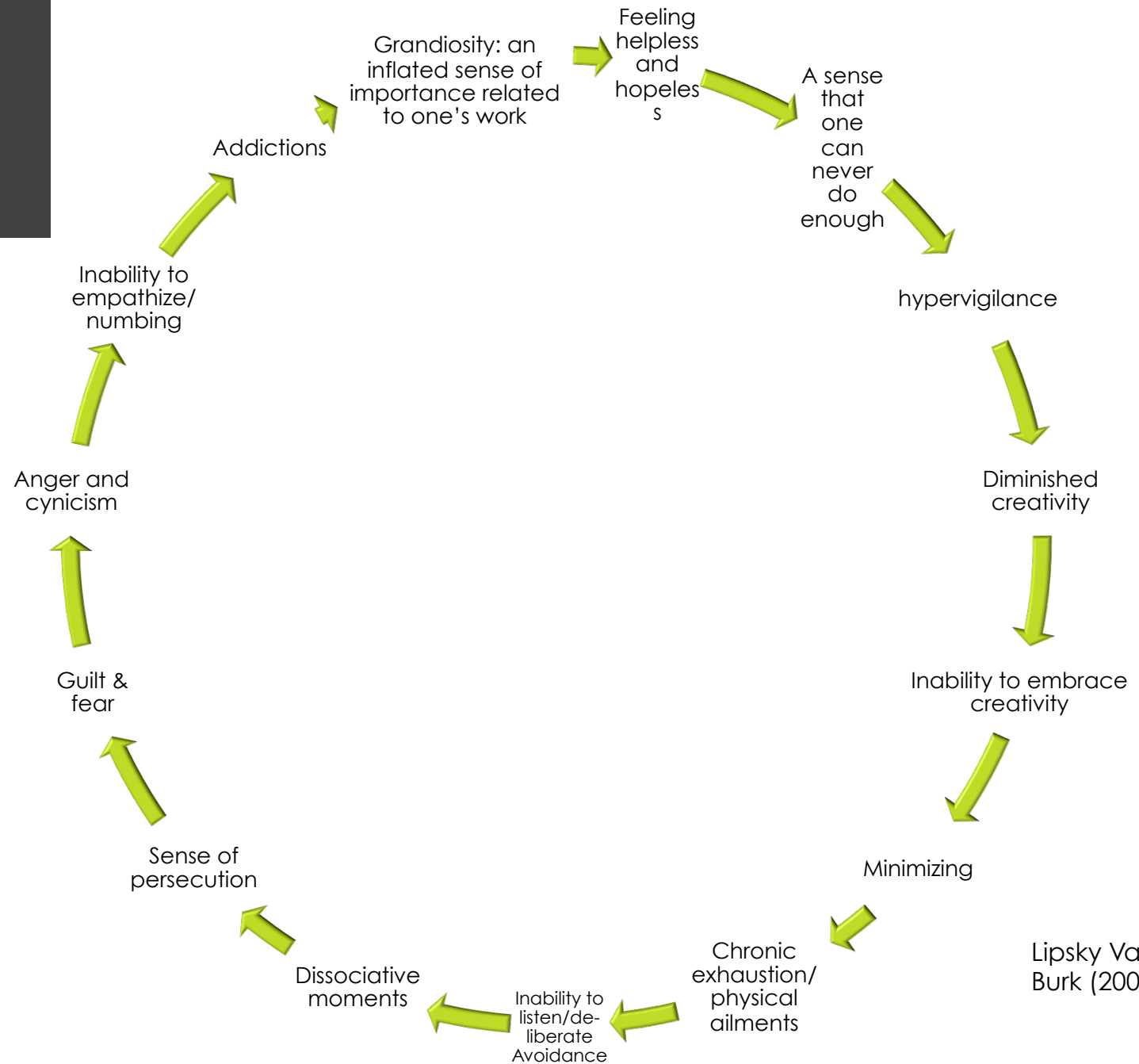| Key Principles |
|---|
| Safety |
| Trustworthiness and Transparency |
| Peer Support |
| Collaboration & Mutuality |
| Empowerment Voice & Choice |
| Cultural, Historical and Gender issues |

Trauma Exposure Response

Grandiosity: an inflated sense of importance related to one's work

Feeling helpless and hopeless

A sense that one can never do enough

hypervigilance

Addictions

Inability to empathize/ numbing

Diminished creativity

Anger and cynicism

Inability to embrace creativity

Guilt & fear

Minimizing

Sense of persecution

Chronic exhaustion/ physical ailments

Dissociative moments

Inability to listen/de-liberate Avoidance

Lipsky Van Dernoot & Burk (2009)

Parallel Processes

Clients

Feel unsafe
Aggressive
Helpless
Hopeless
Hyperaroused
Fragmented
Overwhelmed
Confused
Depressed

Staff

Feel unsafe
Aggressive
Helpless
Hopeless
Hyperaroused
Fragmented
Overwhelmed
Confused
Depressed

Organizations

Is unsafe
Punitive
Stuck
Missionless
Crisis Driven
Fragmented
Overwhelmed
Valueless
Directionless

Bloom and Farragher, 2013

Parallel Processes between client and staff trauma responses

Trauma-organized individual

- Inability to grieve and anticipate future

- Problems with authority

- Lack of basic safety/trust

- Loss of emotional management

- Problems with cognition

- Communication problems

- Confused sense of fair play

Trauma-organized organizations

- Inability to grieve and anticipate future

- Problems with authority

- Lack of basic safety/trust

- Loss of emotional management

- Problems with cognition

- Communication problems

- Injustice, failure to act

Bloom & Farragher, 2013)

Why adopt TIC paradigm?

- Because of comorbidities, we address mental health, substance use, food insecurity, financial issues, healthcare/navigation, housing, employment, etc…
  - Local, regional, and national movement to address trauma
  - Evolving standard of care

- Requisite knowledge available…tools such as NASTAD toolkit

- Need for improved HIV outcomes

- TIC is connected to improvements in patient outcomes
  - reductions in high risk behaviors and harm to community and self
  - Improvements in cognitive and emotional functioning as well as immune system functioning
  - Improvements in PTSD scores, ART adherence, and viral suppression

- TIC is connected to improvements in staff outcomes
  - 13% decrease in staff turnover
  - 24% less absences from work
  - 20% higher productivity and revenue

- Parallel processes between staff and client outcomes

(Bennet (2016; Dulin et al., 2016; NASTAD, 2018; Sales et al., 2016)

Multilevel resilience

- Considers the socio-ecological model of health
  - Individual (psychological), interpersonal (systems), community/neighborhood

- Protection from PTSD

- Protection from further traumatization

- Increased retention in care, ART adherence, and likelihood for viral suppression

- Improved HIV epidemic

Anticipated benefits for staff of trauma resilient organizations

Improved self-care and job satisfaction

Greater sense of occupational safety through increased agency support

Open forum for using voice to affect change in agency

Increase in staff knowledge and skills surrounding trauma, trauma response and trauma exposure response

Improved health outcomes (through parallel processes) moves us closer to ending the epidemic

Local efforts

- CARES
  - ACE Nashville collaboration, University of Tennessee, Vanderbilt (Peabody), VUMC, ViiV PASI, Gilead COMPASS

- ETE: All HIV spaces
  - Mayor's plan, resulting from national effort

- Pathways at CCC
  - Focus on ACEs and response

Regional and national efforts (attention is mounting)

- Call for HRSA-funded (specifically Ryan White services) to adopt TIC paradigm

- NASTAD toolkit: however, the call for empirically support toolkits!

- CFAR collaborations: perceived ethnic discrimination and effort to understand and address race-related stressors (and roll out antiracism initiatives)

- HIV clinics in Southeast urban areas
  1. Explanatory sequential, mixed methods assessment to assess inner and outer context factors influencing TIC adoption
  2. Hybrid Type 1 study of two sites integrating TIC into delivery
  3. Evaluation of RW-quality indicators for retention in care and viral suppression as well as secondary patient (care satisfaction, quality of life) and provider outcomes (compassion satisfaction, burnout)

- FQHC's

- Youth HIV clinics in southern US
  - Social and emotional impairment, resilience, biomarkers (including HRV)

Plan, Do, Study, Act model applied locally

3 year evaluation (mixed methods) with clients and staff and development of an 8-week intervention

- Patients: Systematic trauma screening and response
  - Adverse childhood and life events
  - Perceived ethnic discrimination
  - PTSD screening
  - Trauma and resilience behaviors/ attributes
  - Associations with biomarkers (viral load, CD4)
  - Associations with data-driven outcomes and along the continuum of care

- Providers: Trauma exposure and trauma exposure response screening via surveys and interviews
  - Adverse childhood and life events
  - Perceived ethnic discrimination
  - Trauma and resilience behaviors/ attributes
  - Professional Quality of Life
  - Organizational trauma resilience
  - Associations between retention, burnout, compassion satisfaction, compassion fatigue and organizational outcomes

Brown & Suiter, 2019
[preliminary findings]

Adverse Childhood Experiences
N=216 R=0-11; *M*= 5.2; *SD*= 3.07 score ≥ 4: 148 (66%)

☐ Lived with parent…

1. Mentally ill: 43% (97)

2. Alcoholic: 59% (131)

3. Abusing drugs/Rx: 34% (77)

4. Incarcerated: 33% (73)

5. Separated or divorced 44% (99) or *never married 12.5% (28)

6. Who physically abused the other: 49% (110)

☐ Lived with parent…

7. Who physically abused you as child: 43% (96%)

8. Who verbally/psychologically abused you: 62% (139)

Person 5 years or older or adult…

9. Touched you sexually: 55% (122)

10. Made you touch them sexually: 45% (100)

11. Forced you to have sex: 44% (99)

Brown & Suiter, 2019
[preliminary findings]

Brown & Suiter, 2019 [preliminary findings]

*PTSD predictors N=111 **reference cat.	P value	Odds Ratio	95% CI Lower	Upper
Viral load (**unsuppressed)	.994	.995	.323	3.07
race/ethnicity				
White (**non-white)	.981	.990	.425	2.30
Black (**white)	.260	.622	.272	1.42
Other	.488	2.79	.153	50.85
Hispanic (**non-Hispanic)	.699	1.31	.331	5.2
Gender (**male)	.305	.685	.333	1.41
Education level (N=109) **college grad.				
Some high school	.354	1.78	.526	6.01
High school grad/GED	.395	4.68	.508	5.56
Some college	.694	1.27	.390	4.11
Age (**per each year)	.375	.980	.936	1.03
ACEs scores and PTSD N=97 (**per 1 point)	.407	1.09	.888	1.34
**50% of poverty level	.024	3.40	1.18	9.8
**75% of poverty level	.039	2.38	1.05	5.4

Parallel process of ethnic discrimination?

- 205 participants, including 106 patients and 99 personnel

- 120 (58.5%) identifying as persons of color (Black, Mixed race, or other non-White) [POC] and 85 (41.5%) as White persons [WP].

- POC had significantly higher mean scores than WP, true for POC patients compared with WP patients and POC personnel compared with WP personnel.

- No significant difference in mean scores between WP patients and WP personnel, and no significant difference between POC personnel and POC patients mean scores.

- Mean scores significantly higher for all POC compared with WP: Exclusion, Stigmatization, Discrimination at work/school, Threats/aggression, and Police/security guards.

- POC personnel had significantly higher mean scores than POC patients for Discrimination at work/school and for Exclusion.

- Similar experiences of ethnic discrimination occurring between patients and personnel of the same race but not between patients and personnel of different races.

- Importance of addressing racism, discrimination at work, and exclusion

- Design programs to specifically address racial trauma and healing among personnel of color

- Provide on-going anti-racism workshops for white personnel

- Consider best forum for facilitating programs and workshops (i.e. affinity groups) as to increase the psychological safety of those spaces/efforts.

Brown et al. (in preparation)
[preliminary findings]

Uptake of a TIC HIV intervention

- Contact with trauma team: averaged 8 hours

- **Significant reduction in PTSD scores in intervention group**
  - Averaged 8 contact hours (p=.020)

- **Non-significant reduction in PTSD scores in no-intervention group**
  - Averaged 7 contact hours (p=.245)

- Resilience items protective of PTSD
  - Able to reframe past traumatic events
  - Have a sense of hope/optimism about the future
  - Engages in well-balanced activities of enjoyment

Brown & Suiter, 2019
[preliminary findings]

Key Findings from local and regional efforts

High levels of Adverse Childhood Experiences	• 66% had 4 or more Adverse Childhood Experiences (Mean=5)
High levels of lifetime trauma and PTSD	• 64% (of those with clinical ACEs scores) met PTSD diagnosis
Trauma type predicted PTSD diagnosis	• Unwanted sexual experience (2.77), severe human suffering (2.13), injury/harm caused someone else (5.29), other stressful experiences (2.74)
High uptake of trauma intervention	• Screening and intervention are feasible
Improvements in PTSD symptoms	• Clinical and significant reduction in PTSD

Brown & Suiter, 2019 [preliminary findings]

Key findings from local and regional efforts

- Individual-level intervention can improve psychological well-being

- **All** HIV clinic providers participants "believed TIC implementation should be a priority because of the high level of trauma experienced by patients as well as the potential to improve patient health outcomes."

- Parallel processes for racial discrimination occur by race rather than membership as patient or provider

- Perceived racial discrimination likely mediates ability to achieve all other TIC principles

- Resilience can protect against PTSD and improve HIV outcomes (emphasis on importance of multi-level resilience)

Brown et al. (in preparation); Piper et al., (under review)

Reflections, Questions, Feedback

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