



Preparing Ethical Neuroscience-Informed Counselors: An Infusion Approach

SACES, 2018



Introductions



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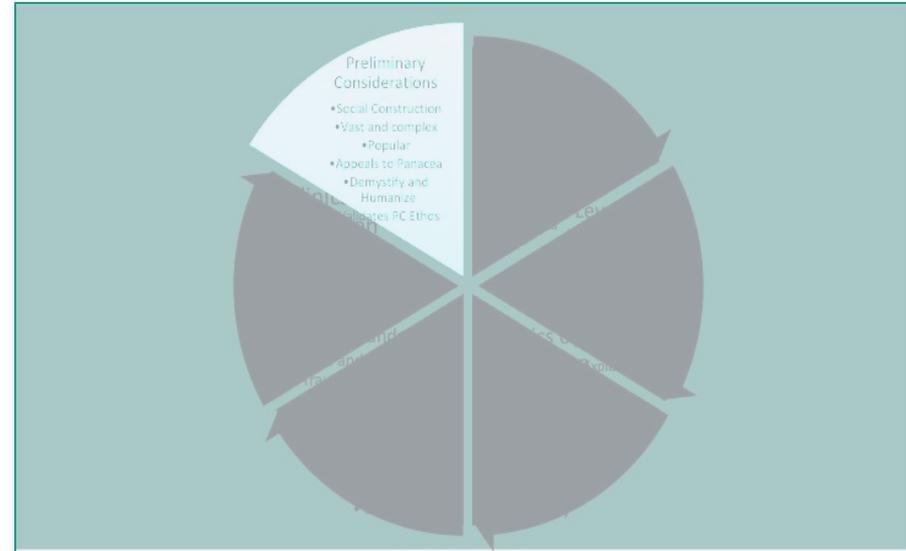
Why Infusion?

Infuse

1. to introduce, as if by pouring; cause to penetrate; instill
2. to imbue or inspire
3. to steep or soak (leaves, bark, roots, etc.) in a liquid so as to extract the soluble properties or ingredients.

Preliminary Ethical Considerations

- Neuroscience integration is a social construction
- Neuroscience literature is vast and complex
- Neuroscience exerts popular culture appeal
- Neuroscience is not a cure-all
- Neuroscience can demystify and humanize client experience
- Neuroscience validates a person-first counseling ethos





Ethical Caveats Re: Relationship

Client Perception of Self (Haslam & Kvaale, 2015)

Client Perception of Clinician (Lebowitz, Ahn, & Oltman, 2015)

Clinician Perception of Client (Lebowitz & Ahn, 2014)

Reduce personal agency and self-control and decrease the perceived effectiveness of non-biomedical treatment (Lebowitz & Applebaum, 2017)

AMHCA recommends that clinical mental health counselors have specialized training in addition to the generally agreed upon course areas endorsed by CACREP.

What does it look like?

Knowledge and skills related to the biological bases of behavior may be covered in a single course or more commonly across several courses or domains of inquiry.

How is it taught?

The skills outlined in this document can be measured through standardized testing, participation in class or team role-playing exercises, reviews of treatment plans, and reviews of progress notes in field work settings.



Infusion

Theories- Key Concepts

Humanistic- Existential

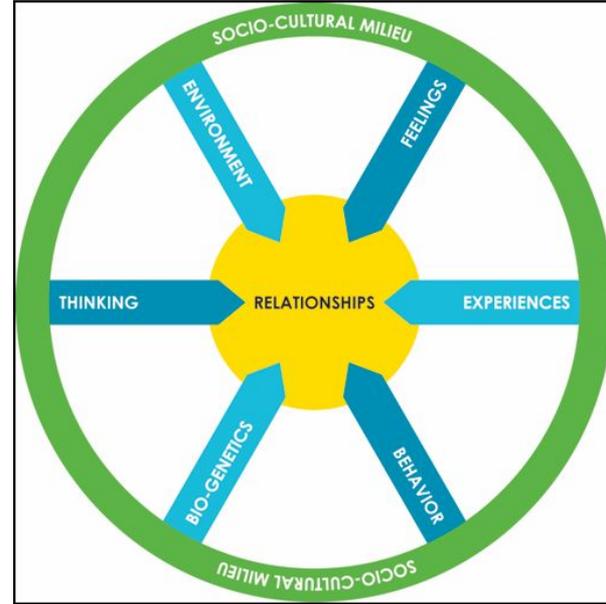
Interpersonal
Physiology

- relationships
are embodied

Psychodynamic

Early Relationships
Consciousness
Memory

*Time Travel: Where did you learn
how to be in relationship?*



Theories- Concrete Examples

Cognitive-Behavioral

Neuroplasticity and
Hebb's Rule (moving
day)

Postmodern

Nature of reality is
constructed, even in
the the case of
empathic responding
to clients



Using a watch or phone with a timer, trace the maze in Figure 4.3 from beginning to end and see how long it takes.

Now try it again: same maze, beginning to end, and time yourself.

Repeat this for a third time.

Now note your times. What happened to them? Most likely your times decreased. This is an example of learning and its connection to memory!



ICE CREAM IS GOOD

Source: © iStockphoto.com/3134446

Crisis and Trauma- Key Concepts

Trauma is a cognitive, physiological, and psychological construct that impacts an individual's ability to regulate emotions, engage with others, and function in daily occupational and personal tasks (Kira et al., 2015; Layne et al., 2011).

The brain experiences stress as a ***whole system event***, and trauma/crisis is an experience that pushes this system into a state of dysregulation (Horowitz, 1989; Siegel, 2012).

The neurotransmitters in the brain and the structures that are involved are the pituitary glands which are stimulated to release stress hormones (epinephrine, norepinephrine, cortisol, and adrenocorticotrophic) in the adrenal glands (Carlson, 2013). This system is referred to as the hypothalamus-pituitary-adrenal axis (HPA).

Crisis and Trauma- Concrete Examples

Counselors with an understanding of the neurobiological function of the stress response system can help clients place their symptoms into the context of adaptability instead of dysfunction.



How sensitive is our stress response system?

What could this mean for clients that have been exposed to crisis or traumatic events?

Career- Key Concepts

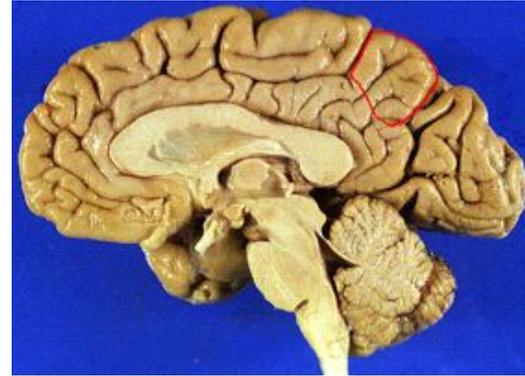
Vocational identity is projection of self onto the world of work (Super)...
...But where is identity in the brain?

Autobiographical memory is the repository of memories that involve the self and the self in context

Autobiographical memory managed by precuneus, hippocampus and ventral medial prefrontal cortex

The precuneus is associated with autobiographical memory, but has a unique feature to it. It allows the recall of self-referential memories from either the first-person or third-person perspective.

This has implications for the role of individual identity and vocational identity development.



"the precuneus may underlie the integration of self-relevant mental simulations with past experiences" (Fretton et al., 2014)

Career- Concrete Examples



Additional Courses



Wrap up

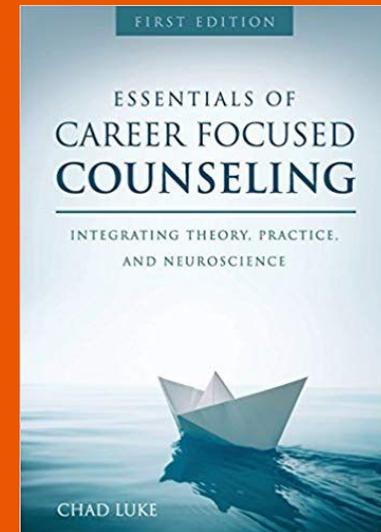
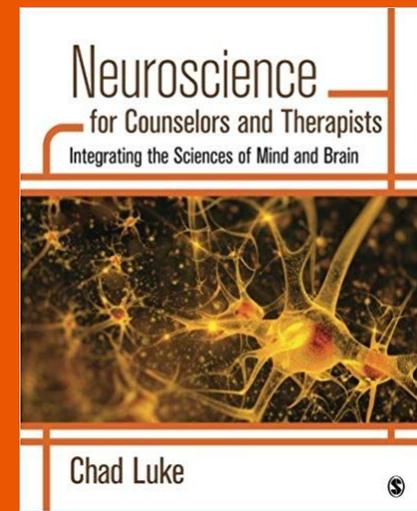
Questions? Comments.

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Additional Resources



AMHCA Clinical Practice Brief

Emerging Clinical Practice Brief

*From the Advancement for Clinical Practice Committee of the
American Mental Health Counselors Association*

**Thriving in a New Era of
Neuroscience: Understanding How
Brain Science Can Inform
Clinical Practice**



AMHCA Recommended Training Standards



(AMHCA, 2016)



American Mental Health Counseling Association Training Standards- Knowledge

Understand the organization of the central nervous system.

Understand the role of plasticity and recovery of the brain across the lifespan.

Process introductory knowledge of the neurobiology of thinking, emotion, and memory.

Possess an awareness of basic screen tools uses to assess central nervous system (CNS) functioning.

Understand the current information about the neurobiology of mental health disorders (mood, anxiety, psychotic disorders) across the lifespan.

Possess basic understanding of reproductive health and prenatal development and how the brain changes across the lifespan

Understand the process of early development including attachment and social environmental factors that influence brain development

Possess knowledge about dementia, delirium and amnesia.

Understand how drugs are absorbed, metabolized and eliminated.

Possess knowledge about disorders and symptoms that may indicate the need for medication

Possess working knowledge of antidepressants, antipsychotics, anxiolytics, mood stabilizers, cognitive enhancers and drugs of abuse

American Mental Health Counseling Association Training Standards- Skills

Demonstrate the ability to counsel clients and describe to colleagues the basic organization of the brain as it may relate to mental health

Demonstrate the ability to counsel clients and work with colleagues to understand the ability of the CNS to change and adapt to life circumstances

Discuss with clients how the neurobiology of thinking, emotion, and memory impact behavior

Identify current research findings and resources about the neurobiology of mental disorders and discuss these findings with clients and colleagues

Identify and briefly describe common assessment instruments used in brief neuropsychological screen instruments

Demonstrate a working knowledge of the biology of reproduction and prenatal development and discuss with clients and colleagues

Counsel clients from a biologically grounded lifespan developmental approach

Understand and describe the aging brain and how it may change across the lifespan

Understand and explain to clients, family and colleagues the most common signs and symptoms of dementia and strategies to improve functioning

Describe how the body metabolizes drugs and the names of the drugs commonly used to treat mental disorders and drugs of abuse

American Mental Health Counseling Association Training Standards- Skills

Identify the most common side effects for the most commonly used medications

Counsel clients about how to communicate with providers regarding the risks and benefits of medication, method of adherence, and common side effects