## MENTAL HEALTH AND MOVEMENT:

## A REVIEW AND APPLICATION FOR COUNSELORS

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## LEARNING OUTCOMES

#### Acknowledge

Effects of movement and mental health

#### • Understand

Neurological connection between movement and mental health

#### • Apply

Encourage clients/students to be aware of, and apply, movement for improved mental health

## Time to Share. (Sharing is caring.)

WHAT IS YOUR EXPERIENCE WITH MOVEMENT AND MENTAL HEALTH?

WHAT OUTCOMES HAVE YOU EXPERIENCED RELATED TO MOVEMENT AND MENTAL HEALTH?



**Biopsychosocial Model** 

Paleoanalysis

**Mindfulness** 

(Engle, 1977; Kostrubala & Kostrubala, 2

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#### **Biopsychosocial Model**

- Dr. George Engle, 1977
- Predecessor: Biomedical Model
  - Detriment to mental health
- Biological, Psychological, Social/Cultural
- Systems approach to overall health
- "...a person does not suffer as isolated organs but rather as a whole...The emotional tone of a person, his/her personality, the surrounding environment, and other social parameters do influence the manifestation of illness."



#### Paleoanalysis

- Drs. Thaddeus & Teresa Kostrubala
- 1970's
- Biology of the human brain and anthropology
- Innate behaviors of early man
- Running
- Ag-Cit
- Running Therapy: Response to Paleanalysis



#### Mindfulness

- Description
- Application



## AND NOW A (STANDARD) DEVIATION...



#### HUMANS WERE BORN TO RUN. REALLY.

#### **Physiological Body Structure**

- Heel attachment to lower leg muscle
- Foot arch suspension
- Stride length
- Toe structure
- Arm swing
- Gluteus maximus
- Energy

#### **Uniquely Human Traits**

- Cool by sweating
- Little body hair
- Control breathing rate

Locomotor ventilatory coupling

(Bramble & Carrier, 1983; Daley et al., 2013; Kostrubala & Kostrubala, 2013; McDougall, 2009; Rolian et al., 2009)
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## DEVIATE BACK TO THE NORM.



#### CASE STUDY: FRANCINE SHAPIRO

#### • Founder of EMDR

- Eye Movement Desensitization and Reprocessing
- Rhythmic, saccadic eye movement + Concentration on reoccurring, distressing thoughts=Thought removal





#### EYE MOVEMENT DESENSITIZATION & REPROCESSING

**EMDR** 

- Empirically supported psychotherapy method
- Treats: PTSD, trauma, anxiety, depression, OCD, personality disorder, eating disorder, dissociative disorder,
- Integrates and reprocesses
   memories/experiences
- Superior to drug treatment over time- less relapse
- Safe, cost-effective
- Mimics REM cycle
- Bilateral stimulation and simultaneous psychotherapy component

(Amano & Toichi, 2016; EMDR Institute, Inc., 2020; National Center for PTSD, 2018; Nijdam & Olff, 2016; World Health Organization, 2014; Shapiro, 2014; van der Kolk, 2014)

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## EMDR: MOVEMENT/REPROCESSING

#### REM Cycle:

- Bursts of rapid eye movements (aka bilateral stimulation)
- Memory consolidation



## BILATERAL STIMULATION(BLS)

- Alternating sensory stimulation
- Induces a more relaxed state through increasing access to, and vividness of, positive recollections
- Visual
- Auditory
- Tactile

How does this work physiologically/neurologically ?





## **BILATERAL STIMULATION & THE BRAIN**

Corpus Callosum

## CORPUS CALLOSUM (CC)

- Largest grouping of white matter fibers
  - White Matter:
    - Bundles of millions of axons that connects neurons into circuits.
    - White color from **myelination**: High speed impulse transmission
- Essential tract of communication between right and left hemispheres
- Enables bilateral communication





#### **BACK TO EMDR:** BLS AND PSYCHOTHERAPY

## A caveat...

EMDR is an effective treatment for trauma even without talk therapy.

Individual with long-standing interpersonal trauma requested EMDR.

Only BLS utilized, psychotherapy omitted.

Therapist administered only BLS with visual stimulus.

Afterwards, individual reported...

no trauma symptoms!

## BLS & MENTAL HEALTH: DOES THAT MEAN ANY BODY MOVEMENT?



## **Body Movement = BLS**

#### Increases:

Endorphins

Cortisol

Adrenaline

Stress management responses (addition, substance use, eating habits

People "feeling better"

Cognitive functioning

Memory



(Blumberger et al., 2011; Chang et al., 2013; Chen et al., 2020; Donaghy, 2007; Doyne et al., 1987; Fler et al., 2019; Griest et al., 1979; Harte et al., 2013; Lucas et al., 2018; Kazemi et al., 2018; Nilsson et al., 2019; Norbrandt et al., 2018; Nyström et al., 2019; Shapiro, 1988; van der Kolk, 2015)

## **Body Movement = BLS**

• Decreases:

PTSD

Interpersonal trauma

Depression

Remission for resistant depression

Distressing memories/thoughts

Clinical depression symptoms

Risk of depression and other mental health disorders

Need for psychotropic medications



(Blumberger et al., 2011; Chang et al., 2013; Chen et al., 2020; Donaghy, 2007; Doyne et al., 1987; Fler et al., 2019; Griest et al., 1979; Harte et al., 2013; Lucas et al., 2018; Kazemi et al., 2018; Nilsson et al., 2019; Norbrandt et al., 2018; Nyström et al., 2019; Shapiro, 1988; van der Kolk, 2015)

## MENTAL STATE



#### **Automatic Shifting**

- Associative State
   Mindfulness
- **Dissociative State** Unconscious



# BLS: Engage the Polyvagal System

#### • Increases

Effective processing of stress Regulations of sympathetic nervous system Physiological shift to calm Resilience

Decreases
 Vagal inhibition
 PTSD

(Lucas et al., 2018; Nilsson et al., 2019; Norbrandt et al., 2018; Porges, 2007; van der Kolk, 2014)



# **INTENSITY** OF MOVEMENT & MENTAL HEALTH

#### **Intensity Impacts Mental Health**

• Decreases

Trauma symptoms Hyperarousal symptoms

Temporary discomfort in a safe environment fosters self-regulation and decreased biopsychosocial impediments

#### Mindfulness

- Association
- Innate component in some forms of movement/exercise (ex. running)
- Mindfulness + physical activity = More successful depression and anxiety treatment



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#### **Observable, Psychological Benefits of Exercise**

- Beginning, end, and completion of activity
- Increase

Positive physiological changes (Measurable, too!) Self-worth

Self-esteem

Sleep quality = Emotional/Cognitive functioning

Sense of achievement/success/accomplishment=Self-affirmation





#### **Running:**

#### Increases

Neural blood flow 20% Endorphins Shifts between conscious/unconscious Socialization Physical health Appearance perspective Body image Self-perception, self-acceptance

Decreases

Depression

Anxiety

Severe mental illness (combined with psychotherapy)

(Barbieri, 2008; Carless, 2008; Chen et al., 2017; Donaghy, 2007; Feng et al., 2020; Greist et al., 1979; Hinkle, 1992; Kostrubala, 1976; Leer, 1980; Malchrowicz-Mośko & Poczta, 2018; Shors et al., 2018; Sabouin et al., 2015; Solomon & Bumpus, 1978; Szabo et al., 1998; Weinstein & Meyers, 1983)



#### Commitment

- Adults
  - 150 minutes per week
    - 3 days, 50 minutes
- Children
  - 60 minutes/day
    - 3x week intense

#### Did you know?

Exercise has a half-life!
 2.5 days

(Centers for Disease Control and Prevention, 2022; Leer 1980)

## AND NOW A (STANDARD) DEVIATION...

## MOVEMENT & POSITIVE ADDICTION

## Dr. William Glasser (Reality Therapy/Choice Theory)

- Book, *Positive Addiction*
- Dedicated activity, 40-60 min/daily
- Running "the surest way to positive addiction"
- Time running=Time meditating



# MOVEMENT & ECOTHERAPY

# Ecotherapy: Use of green space as intervention to improve psychological function

- Urbanized, artificial settings can cause stress
- Nature exposure prevents and alleviates
   mental health disorders
- Calms emotions
- 10 minutes= "Dose"
- Accessible and free
- "Green exercise"



(Buckley & Brough, 2017; Meredith et al., 2020; Sackett, 2010; Song et al., 2008; Summers & Vivian, 2018; Wilson et al., 2008)

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## RETURN TO THE NORM.

MOVEMENT & MENTAL HEALTH : APPLICATION FOR COUNSELORS

DO IT WITH <del>EASE</del> E'S. EDUCATE. ENCOURAGE. ENGAGE. EXTERIOR.



## Educate

## Psychoeducation

- Benefits
- Commitment



## Encourage

Use for holistic treatment

- Times/movements for feelings
- Individuals
- Couples

#### Treatment plans/goals



## Engage

Use in session

· Confidentiality, safety, client's ability/interest

#### Walk and Talk Therapy

Anyone can use

Less eye contact & perceived power differential Promotes adaptability/tolerance of uncertainty

Shared physical experience promotes rapport Metaphor integration

• Students: Walking around school, incorporate sport...

#### Self-Care

- Same research applies!
- Therapists report feeling better after walk and talk with client

(Kostrubala & Kostrubala, 2013; Revell & McLeod, 2017)



## Exterior

- **"Green Movement"**
- Get the "dose"= 10 minutes!

## **Other ideas?**

## New Certification: Run Walk Talk®

- Run Walk Talk® is a method of psychotherapy combining mindful running and walking with talking to help people move their lives forward.
- Run Walk Talk® Level 1 Practitioner Certification:
  - Integrate running and walking into your practice, safely, ethically, and effectively.
- <u>https://www.runwalktalk.com/certification</u>



(Run Walk Talk ®, 2023)

## CASE STUDY



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# BLESSINGS & WELLNESS!

#### Questions, comments, and sharing.

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"You simply have to put one foot in front of the other and keep going." -George Lucas

"I believe God made me for a purpose... when I run I feel His pleasure."

(Hudson, 1981)