PHYSIOLOGICAL UNDERPINNINGS OF PSYCHOTHERAPY INCORPORATING EQUINE IN ADDICTION TREATMENT

Mark Stovall, M.Ed., CAT, CMHT

Katie Holtcamp, PhD, LMSW

Objectives

- **OBJECTIVE 1** Physiological barriers to sustaining recovery outside of a treatment environment
- **OBJECTIVE 2** The horse as a natural model for addiction treatment
- **OBJECTIVE 3** Current research of psychotherapy incorporating equine intervention strategies

OBJECTIVE 1:

PHYSIOLOGICAL BARRIERS TO SUSTAINING RECOVERY OUTSIDE OF ADDICTION TREATMENT

Physiological responses to triggers

- Insert music here

Realities of emotional regulation

- The treatment environment is different than solo recovery
- Traditional treatment programs teach regulation in theory and not in practice
- Home environments have nuances not experienced in a facility
- The consequences of failing to regulate are very real

The healing brain

- 18-24 months on average for the logic center to kick back on in full
- We teach a lot of “why” addiction works the way it does, but we have to encourage responsibility to do something about it rather than using the explanation as an excuse (ie. I am immature because my parents didn’t hug me as a child)
- Trauma processing is rarely complete within 6 weeks of initial treatment.

OBJECTIVE 2:

THE HORSE AS A NATURAL MODEL FOR ADDICTION TREATMENT

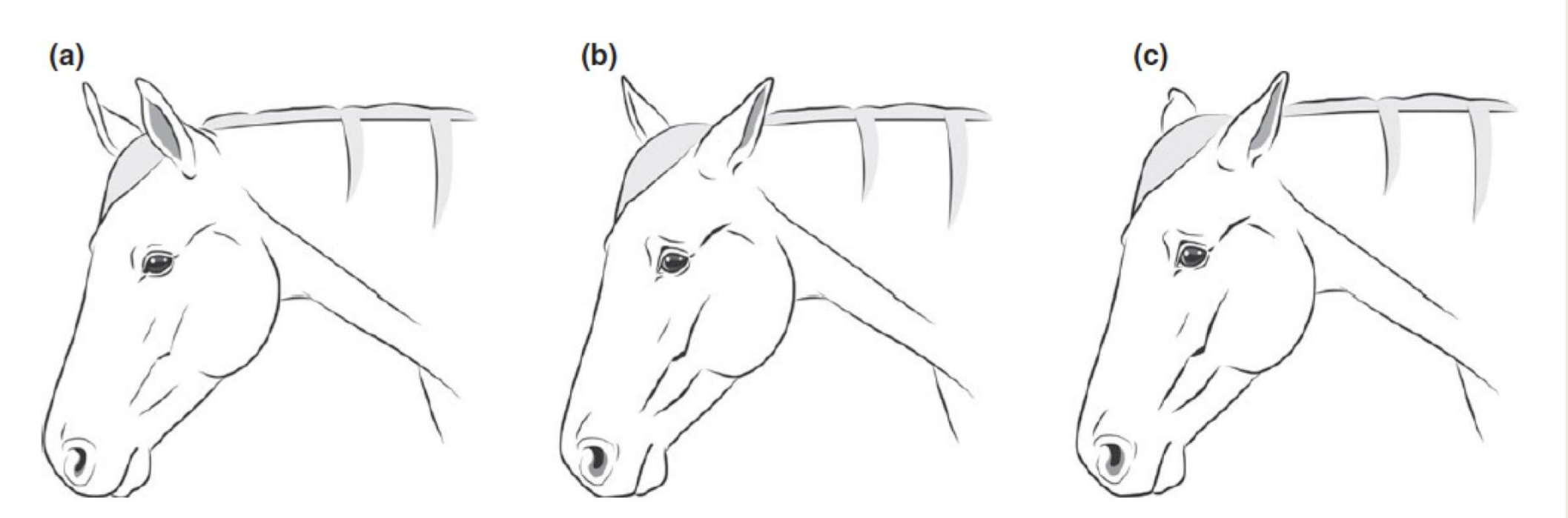
I LOVE HORSES!

- Horses mirror human society, NOT one particular human at a time.

Facial Expressions

- In 1872, Darwin asserted animals could express facial expressions similar to humans. (Darwin & Prodger, 1998)
- Humans have the evolutionary ability to recognize emotions through facial expressions (Deyo et al., 2004; Kadosh & Johnson, 2007)
- Facial expressions give hints about true pain levels (Smith et al., 2016)

Equine Pain Face



(a) Pain free equine facial expression

(b) Pain expression including asymmetrical ears

(c) Pain expression including low ears

Measuring emotional expression of horses

EQUUS-COMPASS

- Adapted by taking out any measures that were not possible to identify with equines in acute abdominal distress.
- Scale from 0 - 3

The EQUUS-FAP

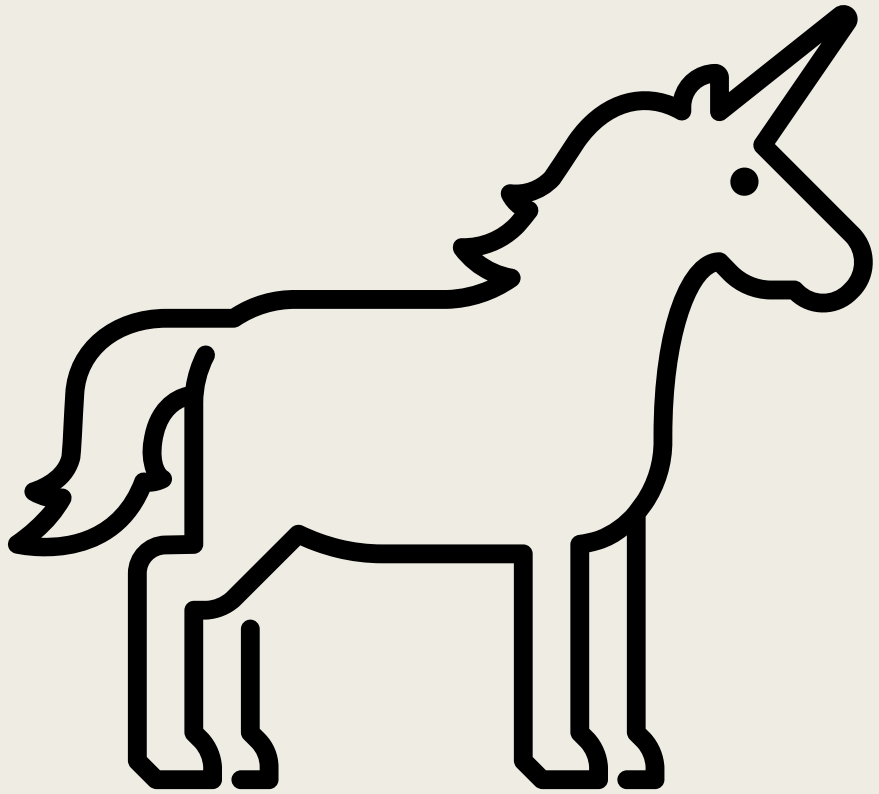
- 9 items that evaluate various facial expression
- Evaluates head, eyelids, focus, nostrils, corners of mouth/lips, muscle tone head, flehming/yawning, teeth grinding/moaning, and ears.
- Scale from 0 - 2

The Horse Grimace Scale

- 6-item instrument
- Evaluates ear position, orbital tightening, strained jaw muscles, strain around the muzzle, and strained nostrils
- Scale from 0 – 2

Internal workings of horses

- Lack of gallbladder
- Lack of pre-frontal cortex
- Dopamine release
- Decisional capacity



Consequences of active addiction: Horse and Human

Horse

- Level 1: Gas Colic
- Level 2: Impaction
- Level 3: Twisted Gut
- Level 4: Death

Human

- Level 1: Intervention
- Level 2: Institution
- Level 3: Legal
- Level 4: Death

Trauma Processing

- Bilateral stimulation
- Heart coupling
- Behavioral responses
- Forward movement

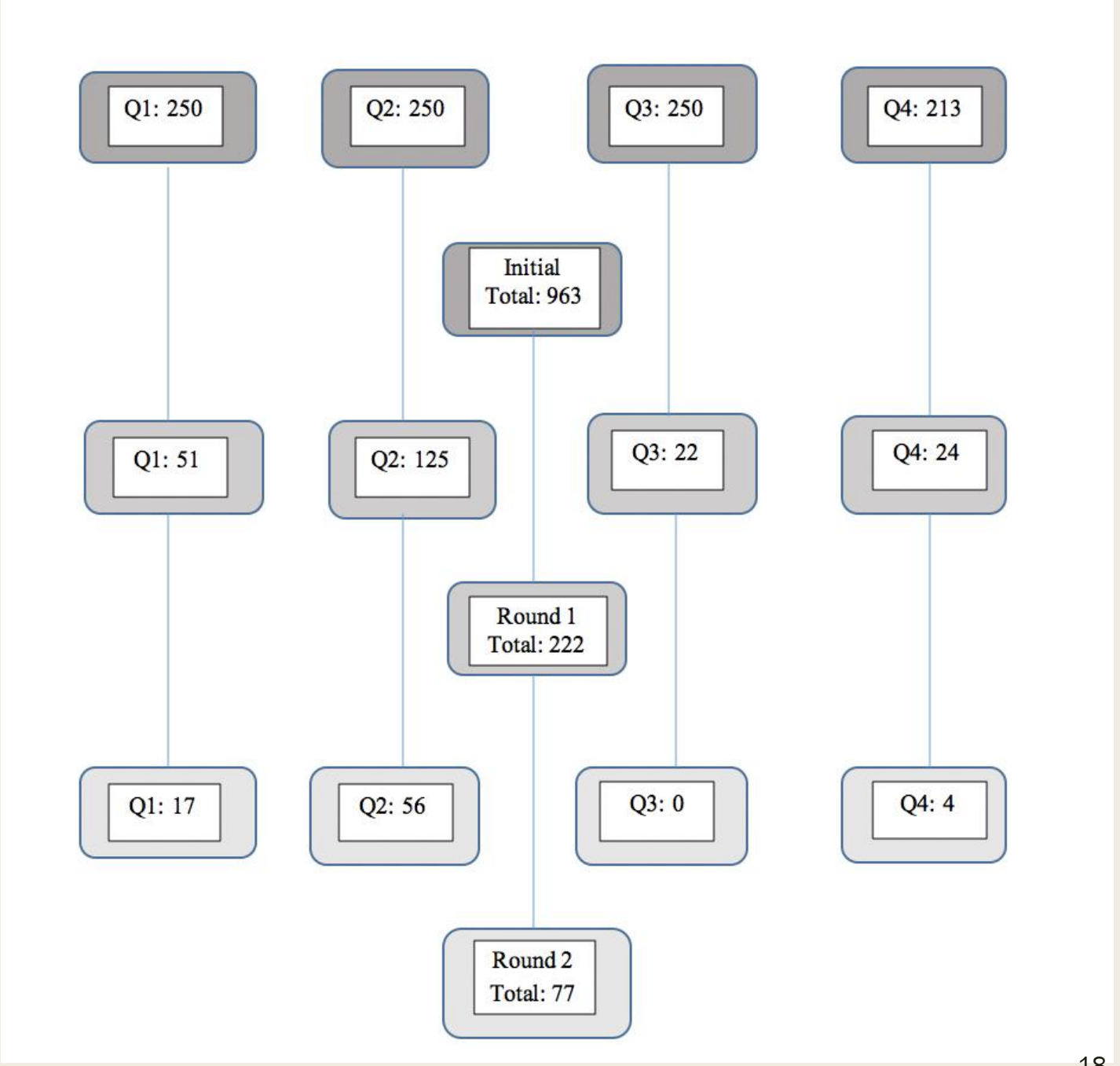
OBJECTIVE 3:

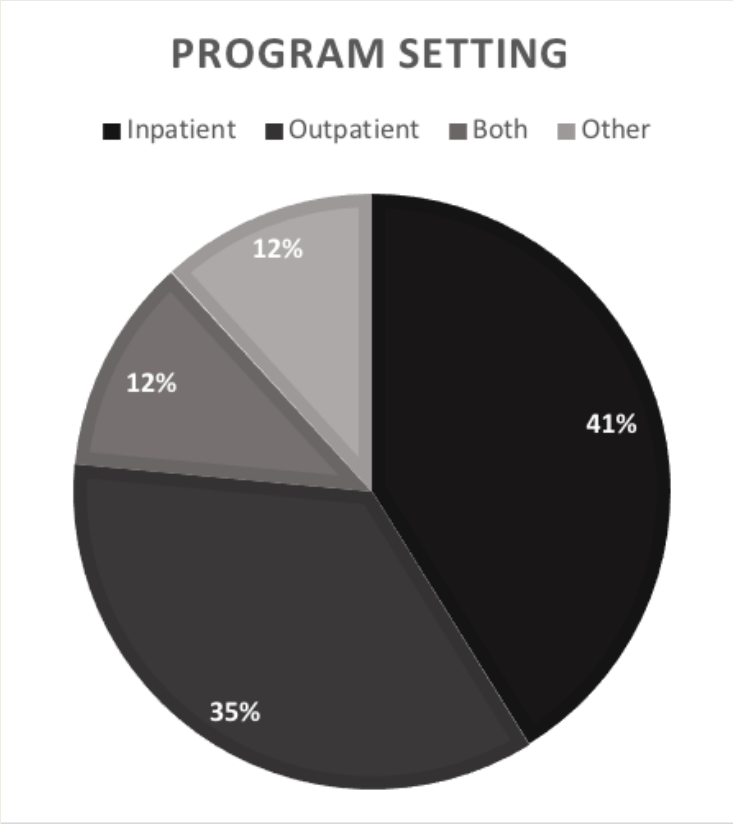
CURRENT RESEARCH OF PSYCHOTHERAPY INCORPORATING EQUINE INTERVENTION STRATEGIES

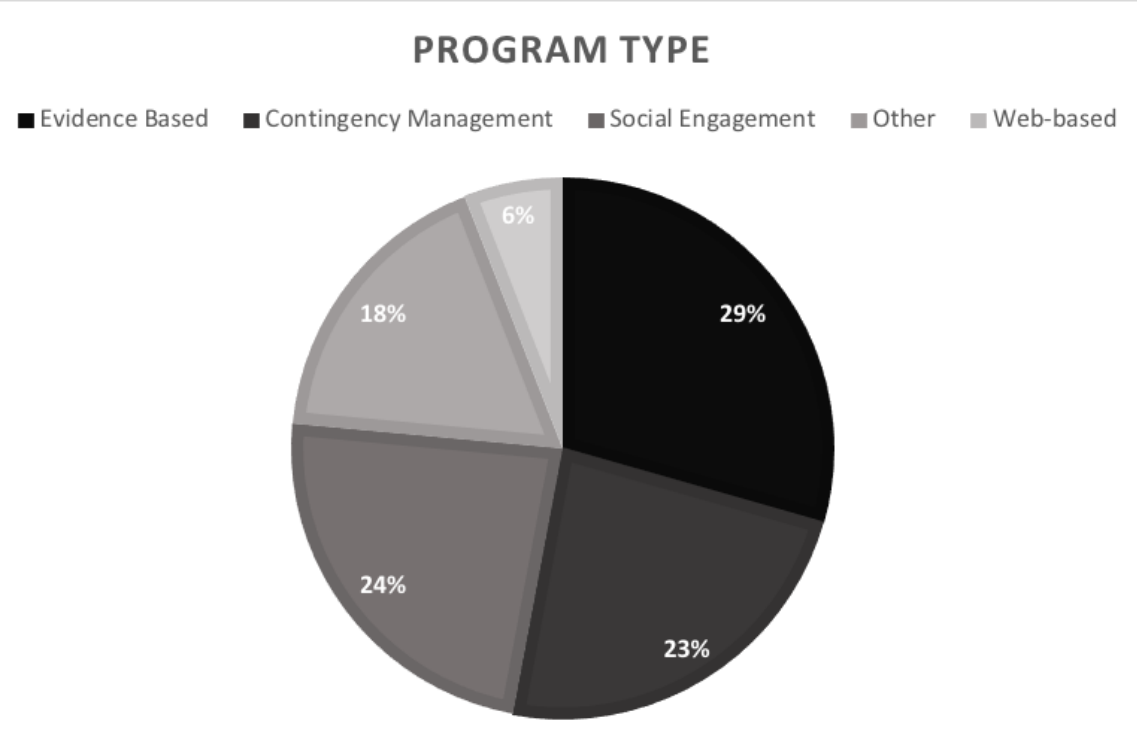
Scoping Review

- Question 1: What are the characteristics and range of methodologies used in SUD treatment?
- Question 2: What are the characteristics and range of methodologies used in EAPL?
- Question 3: What are the characteristics and range of methodologies for evaluating the physiological aspect of addiction treatment?
- Question 4: What are the physiological aspects of EAPL in humans and in horses?

SCOPING REVIEW RESULTS







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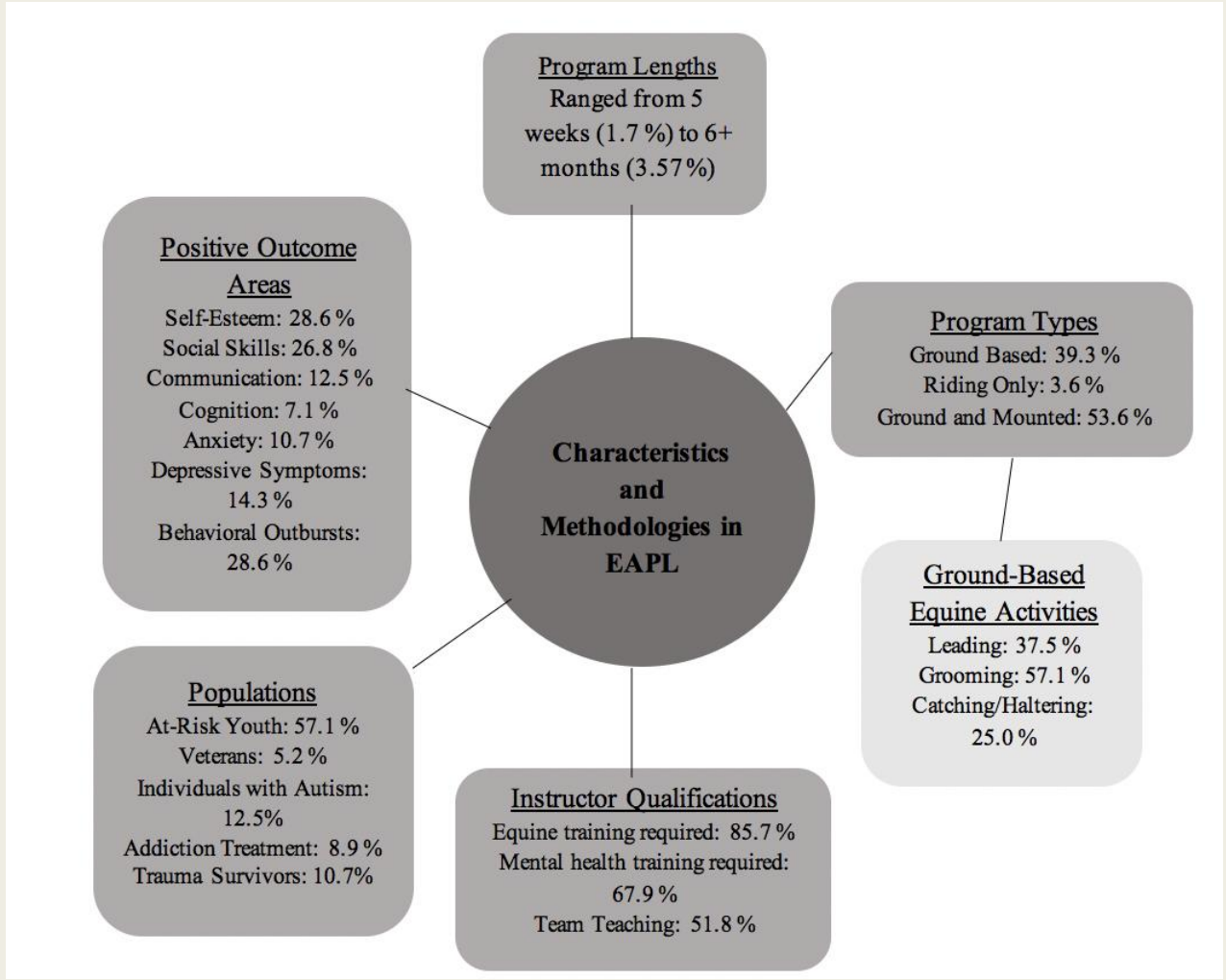

Research that has been completed

- Does equine interaction impact the emotional safety of college students?
- Does EAPL provide physiological and mental health benefits to college students in recovery from SUD?
- Is EAPL a meaningful intervention component for young adults in a residential SUD treatment program?
- The physiology of human equine interactions in equine-assisted psychotherapies during drug withdrawal
- Pilot Study: A comparison of experiential group therapy and equine assisted psychotherapy and learning in college students without a mental health diagnosis

Measurement Instruments

Emotional Safety Evaluation

- Self-reporting
- Ideal score = 60
- Compiled from:
  - GAD-7
  - Social Connectedness Scale
  - Emotional Needs Scale
  - Self-Esteem Inventory
  - Trust/Respect Assessment

Equine Knowledge Exam

- Self-reporting
- Certified Horsemanship Association Instructor Manual Level 1
- Perfect score = 22

Physical Skills Evaluation

- Evaluated by equine instructors
- 2 instructors used for each evaluation
- Based on a 1 to 5 rating scale of competence and comfort with and around horses

(Spitzer et al., 2006; Lee & Robbins, 1995; Shnabel & Nadler, 2008; Lawson et al., 1979; Axtell, 2015; CHA, 2008)

Emotional Safety

- Personal Security
- Respect
- Self-Esteem
- Connectivity

Interesting Findings

- The same emotional safety improvement from 5-7 equine interactions a week for 5-7 weeks was found in a single 50 minute psychotherapy on horseback session.
- Neurotransmitters can be found through saliva testing and do fluctuate throughout PIE sessions.
- Intentional interactions are required for long-term improvements.

Next steps

- Researching outside of North Mississippi
- Control groups
- Quality control of psychotherapy incorporating equine
- Insurance coverage for licensed equine therapists

Questions?

Thank you!

- Mark Stovall
  - *Phone:*
  - *Email:*
- Katie Holtcamp
  - *Phone: 662-322-4729*
  - *Email: katie@dogwoodwellnessgroup.com*

References