



### Developing a PMHNP Program with a Fully Integrated Neuroscience Foundation

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#### Objectives



The learner will be able to...

- Discuss the rationale for full integration of neuroscience principles in PMHNP education.
- Apply framework to the development of a neuroscience based PMHNP program.
- Describe teaching methodologies to support learning in a neuroscience based PMHNP program.

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#### Rationale



- Rapid advances in neuroscience
- Enables more precise diagnoses
- Enables more focused application of therapeutics
- Encourages treatment compliance
- Evidence-based
- Already adopted by psychiatry and psychology

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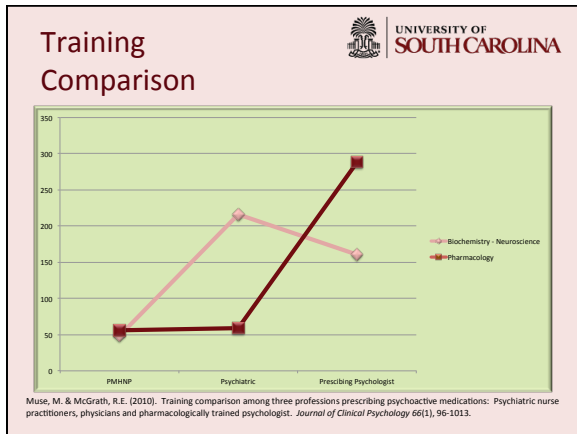
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- 761**
- Neuroscience:
    - Brain & Nervous System Development
    - Anatomy & Physiology
    - Focus on the function and integration of specific systems (Motor, Sensory, HPA, Limbic) related to complex functions:
      - ✓ Pain
      - ✓ Anger/Aggression,
      - ✓ Sleep-Wake/Circadian Rhythm
      - ✓ Language, Memory and Cognition
  - Evaluate competency

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- 761**
- DSM-5
    - Introduction to organization
    - Major classifications
  - Evaluate competency

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- Neuropsychopharmacology
  - ❑ Link classes of psychotherapeutics to DSM-5 disorder classifications.
  - ❑ Neuroscience-based rationales for psychopharmacological treatment approaches.
  - ❑ Use of neuroscience to guide treatment adjustments/address side effects.
  - ❑ Neuroscience Education Institute: Master of Psychopharmacology Certificate
- Evaluate competency

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- Neuropsychopathology:
  - ❑ Theories and Framework for Practice (Neurobiology, Nursing, Psychiatry, Sociology, etc.)
  - ❑ Psychosocial experience & neurobiologic consequences
  - ❑ Neuroplasticity
  - ❑ Review of neuropsychopharmacology
  - ❑ Overview of psychotherapies & neurobiologic rationale for utilization
- Evaluate competency

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- Assessment:
  - ❑ Diagnostic interview
  - ❑ Neurobiology of symptom clusters
- Diagnosis:
  - ❑ DSM-5 criteria
  - ❑ Differential diagnosis
  - ❑ Making a diagnosis
- Evaluate competency

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➤ Treatment: Healing the brain

- Pharmacological review of:
  - Circuits
  - Enzymes
  - Neurotransmission
- Non-pharmacological
  - Neurobiologic rationale
  - Multimodal therapies
- Evaluate competency

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Clinical Application

➤ 3 credit course

- 16 hours per week of field application
- 16 hours of performance check offs
- 240 clinical/field study hours

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➤ Neuropsychotherapy:

- Complexity of human experience
  - ✓ Domains of age, gender, race and ethnicity, sexual orientation, SES and violence
  - ✓ Organization, disorganization and reorganization of experience
  - ✓ Experience - epigenetic connection
- Role of the APRN as psychotherapist
- The Therapeutic Relationship
- Evaluate competency

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➤ Case Conceptualization:

- Case conceptualization models
- In-depth look at therapeutic modalities
- Examination of evidentiary support
- Application of therapies to mental health diagnoses

➤ Evaluate competency

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➤ Prevention of mental health disorders

- Allostasis and allostatic load
- Epigenetic influencers
- Care coordination

➤ Management of complex mental health

- Children, antenatal/postnatal, dementia, palliative care/end-of-life, chronic illness
- Dual diagnoses & severe and persistent mental illness
- Principles of neuropsychopharmacology in special populations
- Utilization of genetics
- Evaluate competency

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- Advance Practice Topics:
  - Legalities
  - Ethics
  - Role in health delivery system
  - Interprofessional practice
  - Billing compliance and reimbursement
  - Documentation and records
  - Making practice evidence-based
  - Translating scientific advances into clinical practice
- Evaluate competency

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- Synthesized application:
  - Formulation, modification, implementation and evaluation of management plans based on the state of the science -
    - Neuropsychotherapy
    - Neuropsychopharmacology
  - Care continuity across the continuum for individuals, families or groups in the delivery setting throughout the lifespan.
- Evaluate competency

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- Interprofessional Care Systems:
  - Formulation, implementation and evaluation of management plans.
    - ✓ Health care providers
    - ✓ Administrators
    - ✓ Mental health care
    - ✓ Health promotion
  - Appropriate/safe clinical and administrative judgments
    - ✓ Ethical principles
    - ✓ Evidence-based strategies
    - ✓ State of the science
- Evaluate competency

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### Clinical Application

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### Learning Methods

➤ Flipped Course Delivery

- Reading Assignments
  - ✓ Textbook
  - ✓ Practice Guidelines
  - ✓ Journal Articles
- NEI-Master of Psychopharmacology
  - ✓ Self-Test
  - ✓ Learning Activities
  - ✓ Case Study Drills
  - ✓ Reinforced in every course

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### Learning Methods

➤ Flipped Course Delivery cont.

- Mini-lectures
- Interactive learning quizzes
- Animation
- Case study
- Discussion
- Simulation
- Clinical
- Written and Clinical Evaluation

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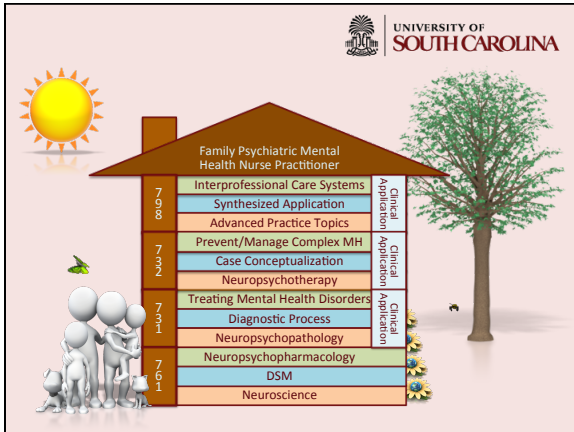
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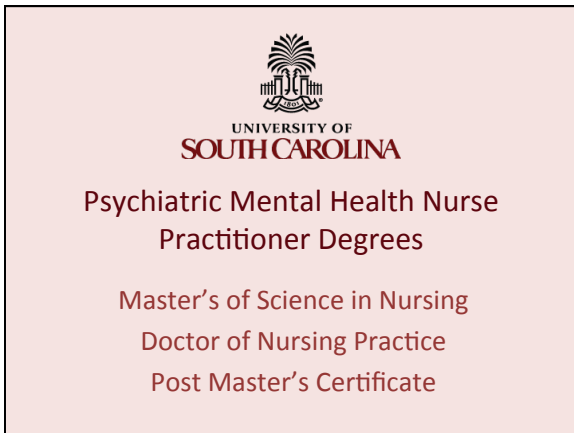
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