Introduction
My research assesses the application of neurology in the field of social work, especially for diagnosing and treating mental diseases and disorders. Specifically, I will examine how social work and PET scans can be used to diagnose and treat mental disease and behavior problems among children and adolescents. 

Key Words:
• Neurology (Neuroscience)
• PET Scans: Positron Emission Tomography
• Diagnosis/Treatment
• Mental Diseases, Disorders: ADHD
• Behavior Problems: Impulsivity, Inattentive, Hyperactive.

Research Question(s)
• How do social workers utilize neuroscience, specifically PET scans, in the diagnosis and treatment of children and adolescents with mental disorders and behavioral problems?
• For social workers who do utilize neuroscience in their practice, how closely does this practice reflect current research concerning best practices in this area?

Significance of my Research
• Social work lacks the hard medical science to diagnose and treat mental disorders and behavior problems. Although neuroscience is not required in the diagnosing and treating of mental disorders and behavior problems, using technology like PET scans, helps pinpoint that activity occurs in the brain and tracking the biological influences that cause mental issues and disorders. Most mental disorders such as ADHD are accompanied by other mental issues that require treatment in order to address the “main issue”; however, most social workers are not aware of this finding. Social workers can do what neuroscientists cannot and vice versa, but embracing both concepts can produce a revolution within both the medical science and the social sciences fields.

Background Research
Positron Emission Tomography scans, also known as PET scans, were invented in 1953 by Dr. Gordon L. Brownell. The idea of PET scans, later evolved by Michael E. Phelps, and has become a new phenomenon. A machine used in the medical world as early as the 1970s, PET scans have continued to advance in technology.

When undergoing a PET scan, the patient is injected with a low dose of radionuclide, also known as “tracer,” which absorbs and emits a positron. For the scan to work, the deposit is given off by the scanner and enables the scanner to pick up the radiation, creating images of the body so that defects can be detected. In most cases, PET scans are not typically utilized for mental diseases and disorders, but, in some cases, their use has resulted in successful outcomes.

Combining neuroscience with social sciences such as social work has created a new emerging revolution in the medical and social sciences worlds. Finally, the lack of hard science in social work has stalled as neuroscience makes its way in the diagnostics and treatment plans for patients who struggle with mental disorders and or behavior problems.

Hypotheses
• Social workers dealing with children and adolescents have a low awareness of the value of neuroscience.
• Social workers who do use neuroscience in their practice may not necessarily focus on what the published research says in terms of how necessary neuroscience in social work is.

Preliminary Results: ADHD Affected Children
• There are two million children in the US alone who are affected with ADHD. That is one out of 25-30 children; nearly two in every classroom.
• 85% of children with ADHD will also have another condition that affects their development and learning.

Methodology
• A specifically designed survey will be distributed at the Nation Association of Social Work Conference that will be held in Milwaukee, WI this fall.
• I will survey roughly 15-20 social workers who specifically deal with children and adolescents. The survey will include five to ten reasons in regards to using neuroscience in social work with 4 to 5 different answers.
• Questions posed about the importance of neuroscience in social work and how often it is utilized will be examined.
• The survey will show what type of social workers use neuroscience and in what contexts, and the data will be compared to who uses it, when it is used, and where it is used the most.

Conclusion
This research should identify the best practice, either referring a client to a psychiatrist for prescribed medication or using interpersonal therapy with a medical scientific basis, like neurology, for diagnosing and treating mental disorders and behavior problems among children and adolescents.

Bibliography

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