

## What is Psychology's Role with New Neuroimmunology Findings?

Editorial

Sexton-Radek K\*

Sleep Associates and Suburban Pulmonary, Elmhurst College, USA.

In our graduate level, Doctoral training we are provided with a Biological Bases of Behavior course and sometimes an elective to take an advanced seminar in Neuroscience. With this training, we discover the impact of our biological functioning on behavior. Newest in this focus is the area of Neuroimmunology. The ways in which the body utilizes adaptive and cellular defenses against bacteria, viruses, prion and other toxins in one general facet of the field of Immunology. Recently in media sources, new hypotheses of the role of dysfunctional immune system functioning thus allowing a type of brain virus has been hypothesized with the disorder of Schizophrenia. And, gender differences in the response to pain; -particularly the activity of pain receptors has been concluded to involve microglia cells that then impact immune system functioning. Also, toxins, such as tobacco smoking, is a source of inflammation of neurons that alters delicate signaling necessary for the neural transmission of cognitive behaviors associated with the recognition of chronic pain (involving both the nucleus accumbens and medial prefrontal cortex). Which these basic science findings provide a multitude of pathways to consider for the study of behavior, they, also, provide one more message in this age of Neuroscience of the need to consider biological bases of behavior.

A new role or the resurgence of the current role of Psychology's involvement in the biological bases of behavior is to be considered with the recent neuroimmunology findings. As Behavioral Scientists and Clinicians, we be in the role of further investigation and the consideration of biological factors associated to the behaviors of our patients. We can broaden the scope of our investigations in basic science to include the many factors involved

in neuroimmunology. Such matters as the availability of receptors for types of behaviors and signals that turn them on and off. Also, the neuromodulator role of some neurons to the neural transmission that may be influenced by immune system changes. As a practitioner, we consider the responses of our patients if they are on a medication with questions of the pharmacokinetics and pharmacodynamics of that prescription for our patient. Additionally, the general health and medical diagnoses of our patients may be influenced or a determining factor may be present from their immune functioning. At the familiar level, a patient with a cold virus and the effects of the ill health on their mood, activity level and psychological functioning must be considering.

The new role we may consider in our field when impacted by basic science discoveries of the neuroimmune system on patient functioning begins on a platform of general knowledge and moves on a pathway to be determined where perhaps substantiated findings may provide possible explanations to understand behavior. Thus, the new role is one of a pathfinder in collaboration with our study participants and patients where we evaluate, reflect and consider together these new findings as they may provide further understanding of behavior.

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#### \*Corresponding Author:

Kathy Sexton-Radek, Ph., D., C.BSM,  
Sleep Associates and Suburban Pulmonary, Elmhurst College, USA.  
E-mail: [ksrsleep@aol.com](mailto:ksrsleep@aol.com)

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