



Three truths of neurocounseling

Counseling changes the brain. Counseling helps clients build new neuronal pathways. The brain is the final frontier in exploring and understanding what makes us tick.

These statements represent three neurocounseling truths. With technological advances in brain imaging and recording, clinicians are provided clear evidence that psychotherapy induces discernible changes in brain structure and function, often with efficacy equal to or greater than psychopharmacology.

Counselors have known for years that counseling changes thoughts, behaviors and the brain, and now we have scientific evidence. What a bonus for the counseling profession! It is perfect timing in our counseling history to begin an inaugural column on neurocounseling in *Counseling Today*. A team of counseling experts from across the nation will develop and contribute to this monthly column, with Lori Russell-Chapin and Laura Jones leading the team as column co-editors. Each month, a team member will write a neurocounseling article that bridges the gap between brain and behavior. Our team writers are Allen and Mary Ivey, Jane Myers, Carlos Zalaquett, Tom Collura, Ted Chapin, Kathryn Douthit and Oscar Goncalves.

Our team agrees with the new direction of the National Institutes of Health (NIH), which is well on its way toward a brain-based system of diagnosis. We believe that system will lead away from the current diagnosis and classification system used in the *Diagnostic and Statistical Manual of Mental Disorders* and directly toward brain-based recommended

treatments. The NIH has created the BRAIN Initiative, which stands for Brain Research through Advancing Innovative Neurotechnologies (see nih.gov/science/brain/2025/). Considerable investments have been allocated to advance better understanding of the brain and its functions.

A core objective of the BRAIN Initiative is an *integrative* understanding of brain-behavior processes. For example, with an understanding of the emotional limbic system, counselors can better attune themselves to clients and assist more effectively in emotional regulation and positive decision-making. As integrative brain-behavior research continues to expand, these principles will influence clinical best practices. Counselors must be prepared to both participate in and respond to such changes.

The link between counseling and neuroscience

In a recent article by Alessio Barsaglini and colleagues in *Progress in Neurobiology*, counseling and neuroscience are undeniably and inextricably linked, irrespective of whether counselors choose to recognize and harness the workings of the brain within clinical practice. Neuroscience and neurobiology reveal that virtually all that we have learned and practiced in counseling is and has been accurate. At the same time, we can become more precise and more effective with our clients when we possess an understanding of the brain and its operation.

Mental health counselors are beginning to recognize the power that lies in integrating principles of brain science

into daily practice. The number of references addressing neuroscience in programs at the American Counseling Association Conference has increased significantly, tripling from 2008 to 2013. At the same time, CACREP Standards for accreditation are moving toward a greater emphasis on training in neurological and neurobiological foundations of client development, well-being and the counseling process. Bridging brain and behavior advances two of the key consensus issues highlighted in the *Principles for Unifying and Strengthening the Profession*, developed as part of the 20/20: A Vision for the Future of Counseling initiative. In a 2011 article written for the *Journal of Counseling & Development*, David Kaplan and Samuel Gladding touched on the two consensus issues of “optimum health and wellness for those served” and encouraging “evidenced-based, ethical practice as the foundation for counselors in training and professional counselors’ interventions across settings and populations served.”

Counselors are in a distinctive position to apply burgeoning neurobiological discoveries in our positive practice of social justice, wellness, strengths-based counseling and developmental orientation. As we move to practice “neurocounseling,” we can ensure that counseling maintains a leading role among the mental health professions.

Seeking allostasis

The confluence of all of the above led to the development of this monthly column for *Counseling Today*. A major challenge for clinicians is the application of neuroscience to counseling. The goal of our column will be to serve as a

conduit for such translation, providing information to inform your counseling practice, research and pedagogy.

Major themes will revolve around strategies for self-regulation, including executive functioning and emotional regulation. Self-regulation is perhaps best understood through the concept of Robert Sapolsky's allostasis, the constant and delicate adjustments the brain and body go through by assessing and deciding the physiological or behavioral adaptations needed to maintain our balance. As Ted Chapin and I (Lori Russell-Chapin) write in our 2014 book *Neurotherapy and Neurofeedback: Brain-Based Treatment for Psychological and Behavioral Problems*, this assessment involves "the current state of the varied neurological, somatic and autonomic systems, a survey of the immediate and anticipated environmental demands and stressors, and application of various internal and behavioral strategies for returning to a state of balance. Understanding the allostatic process assists in knowing there are many adaptive methods available in achieving homeostasis."

Neuroscience and neurobiology inform us that counseling does more than just affect the brain. Our words and empathic understanding in counseling also affect the body through changes in heart rate, blood pressure, flow of hormones and neurotransmitters. Allostasis will possibly become a defining goal of our field because it is self-regulation in action. Sapolsky, of Stanford University, points out that our brains and bodies are full of checks and balances, accelerators and brakes, and start-and-stop mechanisms. Allostasis and self-regulation are about finding a balance for life through stimulation and inhibition. For example, we all need stimulation and even some stress to learn and remember, which is one function of the neurotransmitter glutamate. But we are also blessed with GABA (gamma-aminobutyric acid), which slows us down or even shuts us down when necessary. Some clients need calming, others stimulation, but all need allostasis, a cognitive/emotional balance.

Brain-imaging technologies have contributed substantially to our understanding of the behavioral and cognitive mechanisms underlying self-

regulation. Albert Bandura defines self-regulation as intentional acts directed from within the person that enable individuals to live cooperatively, achieve goals and maintain wellness throughout the life span. At the same time, understanding the brain and neurobiology enables us to understand the most difficult clients. Our understanding of the workings of the brain and body will also allow us to work with physicians more effectively, as well as use current and developing interventions that are focused on recovery.

Opening new territory

Imagine sitting across from one of your clients for the first time. You are hearing the client's story and noting emotions, cognitions and behaviors that play a central role in present functioning. You are developing the therapeutic relationship — empathizing, mirroring, attuning and establishing resonance. The difference this time around is that you are also focusing on neurocounseling and how you can bridge the gap between your client's brain and behavior.

Suddenly this emphasis opens up an entirely new territory with additional knowledge, skills, treatments and outcome possibilities. Neurocounseling teaches clients how their physiology and brain affect behaviors and emotions: For many of our clients, this new understanding — whether it involves controlling skin temperature, diaphragmatic breathing, heart rate variability or how trauma overarouses the amygdala — will assist them in better understanding that they are more than just thoughts and behaviors.

Neurocounseling immediately presents a deeper understanding of who they are, while also offering relief. Moreover, as clients learn about their own brain in a mutual process, they will be better able to regulate their own thoughts, feelings and behaviors.

Sapolsky said it best: "Perhaps most excitingly, we are uncovering the brain basis of our behaviors — normal, abnormal and in-between. We are mapping a neurobiology of what makes us us."

Our monthly columns will address methods of achieving essential self-regulation and allostasis from information about brain and behavior, biofeedback,

neuroregulatory functions, decision-making and the brain, neurotherapy, neurofeedback and neuroarchaeology. The articles will apply this new information to practical counseling applications. At the end of a year, we will dedicate a column to answering any questions our readers might have.

In conclusion, the major goal of this column will be to generate excitement and interest in the working mechanisms of the brain and to show their applications to counseling. Neuroscientific research is progressing at blazing speed, and those who avoid this new knowledge risk being left behind. Better understanding of the brain has truly changed how we conduct counseling. Teaching self-regulation to clients offers them intrinsic locus of control, self-confidence and additional hope for their future. It is our hope that this monthly column may do the same for our readers.

It is also our hope that there will be enough energy in the neurocounseling movement to create an American Counseling Association interest network down the road. Please contact us with your ideas, questions and interest in this neurocounseling adventure. ♦

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