FROM THE EDITOR

Applications of Biofeedback and Self-Regulation in Medical Settings

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Guest Editors: Nancy Christie, PhD, LPC, and Wayne Martin, LCSW

The cover of this issue shows Ryan, a pediatric neuroscience patient at Cook Children’s Medical Center in Fort Worth, learning biofeedback with his therapist Nancy Christie, PhD, to alleviate his headache symptoms.

This special issue is dedicated to “Applications of Biofeedback and Self-Regulation in Medical Settings.” Since the Spring issue of 1999, Biofeedback has repeatedly dedicated special issues to promoting an integration of biofeedback, psychophysiological therapies, self-regulation training, and hypnosis into primary care, pediatrics, and health care in general. Terence D. Davies, Chairman of Family Medicine at Eastern Virginia Medical Center, served as Guest Editor for that Spring issue of 1999. Together we proposed a marriage of clinical psychophysiology and primary care, an integration into one house, and one collaborative treatment team. This seamless integration has not yet been achieved, and many of our patients still shuttle back and forth between primary care and specialty offices, frustrated by the lack of collaboration, and the lack of a unified and effective attention to their complaints.

In this Special Issue, Guest Editors Nancy Christie, PhD, LPC, and Wayne Martin, LCSW, have gathered together several articles describing how the integration of biofeedback into health care can and should be pursued.

Professional Issues

Sebastian Striefel opens this issue with an article on ethical behavior in medical settings, and highlights the professional practice standards and ethical principles relevant in a medical setting. Many issues, including competency, confidentiality, and informed consent become challenging in new ways in hospitals and medical clinics.

Fred Shaffer and Judy Crawford provide an update on the efforts of the Biofeedback Certification Institute of America (BCIA) to serve biofeedback and neurofeedback practitioners beyond the borders of the United States. BCIA certification is becoming an international gold standard for biofeedback professionals, and BCIA now lists a growing number of international certificants. The availability of quality biofeedback training in several languages, and the availability of distance learning and distance mentoring are supporting this process.

Special Issue Articles: Applications of Biofeedback and Self-Regulation in Medical Settings

Nancy Christie reports on the utilization and integration of biofeedback for headache in a pediatric neurology clinic at Cook Children’s Medical Center (CCMC) in Fort Worth, Texas. She provides a case study of a fifteen year old girl with chronic daily headaches to show how the biofeedback therapy and behavioral interventions for life style change are integrated with this girl’s medical care in a single setting. Success with headache in this setting has resulted in biofeedback being made available for other disorders as well, from Tourette’s to complex regional pain syndrome. Biofeedback is offered to children from all socioeconomic levels and backgrounds, regardless of the type of insurance or financial affordability.

Wayne Martin and Kristine Gaenzle report on the Martin Center for Chronic Pain Management at Baylor All Saints Medical Center in Fort Worth, which has integrated psychophysiological services into its treatment programs for pain management and psychiatric patients. The authors present case studies of a 52 year old woman with fibromyalgia and a 42 year old woman with irritable bowel syndrome. They also describe the use of relaxation training and hypnosis for patients in medical detoxification from opioid use, and a relaxation training group offering breath training and progressive muscle relaxation for psychiatric patients.

Joan L. Wilson provides an example of the integration of a Psychophysiology Clinic into a US Army Neurology service at Madigan Army Medical Center at Tacoma, Washington. The Madigan Psychophysiology program brings biofeedback-assisted therapies to combat-injured soldiers, many of whom suffer mild traumatic brain injury and post-traumatic stress disorder. One of the primary goals of this program is to treat the soldiers effectively and early, so that their medical problems do not become chronic.
Paula Grayson reviews the development of the biofeedback-assisted relaxation training program at Children’s Mercy Hospital and Clinics in Kansas City, Missouri. This program was developed as part of the Abdominal Pain Program there, for children with chronic abdominal pain, eosinophilic gastroenteritis (EGE), dyspepsia, and irritable bowel syndrome, and includes a number of “fun” relaxation exercises for children, as well as the use of biofeedback instruments incorporating games and imagery attractive to children, such as The Wild Divine Project™ games and the emWave PC™. The program has now been extended to children with a wide variety from disorders, from headache to fibromyalgia.

Feature Articles
William Edmonds, Tom Kennedy, Phillip Hughes, and Pablo Calzada report on their research to investigate whether changing the pattern of breathing, including the length of the inhale and exhale portions of the breath, has an effect on heart rate variability. Past research has shown that changing the rate of breathing is an effective tool for enhancing heart rate variability and optimizing health, there is relatively little research on breath patterns, the dimension addressed by their investigation.

Finally, Erik Peper, James Johnston, and Anna Christie provide a discussion of two fascinating adjunctive tools for thermal biofeedback training, mild chocolate and dark chocolate. They describe the history and broad use of thermal biofeedback since the 1960s, and the serendipitous discovery by a student researcher that chocolate can be employed in an enjoyable process of self-regulation training.

Proposal and Abstracts
Authors are invited to submit manuscripts on any topic in applied psychophysiology and biofeedback. Articles are welcome presently for special issues on Advances in Neurofeedback and Quantitative Electroencephalography for Spring 2010, Advances in the Use of Surface Electromyography for Summer 2010, a Neal Miller Memorial Issue for Fall 2010, and The Psychophysiology of Yoga, Meditation, and Spiritual Practices for Winter 2010. Proposals and Abstracts are also invited for additional topics for future special issues of Biofeedback.