SPECIAL ISSUE

Mindfulness, Acceptance, and Compassion in Biofeedback Practice

General Editor: Donald Moss, PhD, BCB, BCN
Special Issue Editor: Inna Khazan, PhD, BCB

The cover of this issue of Biofeedback shows a photograph reflecting the mindfulness theme of this special issue. Thanks to Shutterstock for the use of this photo.

Introduction to the Special Issue

Mindfulness, acceptance, and compassion are words heard with ever greater frequency in healthcare and behavioral health circles. Originally inspired by Vipassana meditation in Buddhist traditions, mindfulness encourages the practitioner to cultivate a moment-to-moment awareness of present events, characterized by nonjudging, nonstriving, acceptance, trust, nonattachment, patience, and beginner’s mind (Kabat-Zinn, 2013).

The Guest Editor of this special Issue is Inna Khazan, the author of the recent volume, The Clinical Handbook of Biofeedback: A Step-by-Step Guide for Training and Practice with Mindfulness. Khazan’s (2013) book proposes a fruitful integration of the mindfulness approach with clinical biofeedback practice, suggesting that the cultivation of an open attitude of acceptance and compassion, on the part of the therapist and patient, facilitates a more successful pursuit of physiological self-regulation. It has long been recognized that striving and effort block relaxation and reinforce physiological tensions. Four decades ago, Herbert Benson (1975) recommended cultivating an attitude of passive attention or passive volition as one of the four components of the relaxation response. Mindfulness, acceptance, and compassion-based approaches take this cultivation of an open and accepting awareness to a new level.

Mindfulness has been integrated into clinical practice in several different forms. Kabat-Zinn (2013) and Grossman, Nieman, Schmidt, and Walach (2010) initially popularized the mindfulness approach and developed the mindfulness-based stress reduction approach at the University of Massachusetts Medical Center, now practiced widely and used in countless research studies. Mindfulness-based cognitive therapy integrates the understanding of cognitive systems developed by Phillip Barnard and John Teasdale, with a mindfulness and acceptance framework guiding the individual to disengage from automatic thought patterns and shift into a more mindful awareness (Segal, Williams, & Teadale, 2002). Stephen Hayes and colleagues (Hayes, 2004; Hayes, Strohsal, & Wilson, 2012) developed a form of psychotherapy, Acceptance and Commitment Therapy (ACT), based on an approach of accepting fearful and distressing thoughts, rather than combating them. The therapeutic objective of ACT is to be mindful present with whatever the present moment brings us, and to move toward personally valued behavior.

The mindfulness and acceptance-based approaches have been called a third wave in psychotherapy. Some advocates for cognitive behavioral therapy (CBT) dispute whether ACT is so different from CBT as to constitute a new wave (Hofmann & Asmundson, 2008), yet some of the critiques seem misguided (Gaudiano, 2011), and mindfulness approaches continue to generate a substantial body of clinical applications and research studies (Irving, Dobkin, & Park, 2009).

The mindfulness approaches have generated such appeal that at least 50 mobile applications are now available for self-training in mindfulness. Plaza, Demarzo, Herrera-Mercadal, and Garcia-Campaya (2013) recently reviewed the available research on 50 mindfulness mobile applications and found a complete lack of evidence to document the usefulness of the apps, yet the number of available applications continues to increase.

For this special issue, Dr. Khazan has recruited a number of authors who have integrated mindfulness strategies, mindfulness training, or an acceptance-based therapy with biofeedback.

Special Issue Articles: Mindfulness and Compassion in Biofeedback Practice

The lead article for this special issue comes from Inna Khazan. Dr. Khazan has provided the readers of Biofeed-
back with a special treat. She has distilled much of the message of her 2013 book into the confines of this article. She introduces a framework for integrating mindfulness and acceptance skills into biofeedback practice, provides a useful acronym—FLARE—to encapsulate the approach for clients, and uses discussion of a case example to illustrate mindfulness in action in a biofeedback training session.

Next Urszula Klich advocates for integrating compassion practices with biofeedback. Compassion has long been seen as a tool for healing in Eastern traditions. Klich summarizes the growing evidence that cultivating compassion for the other as well as for the self can counter stress, anxiety, and depression. She provides a framework for integrating compassion into clinical biofeedback and provides a case narrative of a patient treated for migraine headaches to show her approach.

Remko van Lutterveld and Judson Brewer review research based on functional magnetic resonance imaging (fMRI), showing that the “default mode network”—including the posterior cingulate cortex (PCC)—can serve as a “mental mirror” for meditation. When experienced meditators from two different traditions entered into meditation, activity in the PCC was greatly reduced. In turn, the authors suggest that increases in the PCC are correlated with “getting caught up in one’s own experience,” mind-wandering, and drug cravings. They propose that EEG-based neurofeedback with source localization may present a relatively inexpensive form of feedback to support novice meditators’ mastery of meditative states.

Dana R. Wyner reports on a pilot study at a university counseling center that utilized group-based mindfulness and compassion-based relaxation training along with biofeedback, to assist university students to manage stress. Questionnaire data was gathered prior to and following the interventions, and showed reduction of perceived stress for all groups, and an improvement in perceived coping abilities after biofeedback was integrated into each session. The results indicated that the integration of biofeedback into each phase of the training increased treatment adherence and participants’ intentions to practice the skills outside the sessions. In addition, symptoms of depression, social anxiety, and academic distress only showed significant reductions once biofeedback was incorporated into the treatment.

Richard Gevirtz introduces ACT, a mindfulness and acceptance-based therapy developed by Stephen Hayes, as a therapeutic approach that combines well with biofeedback-based clinical protocols. Gevirtz summarizes the resonance frequency-based protocol he utilizes in heart rate variability (HRV) training. He introduces six core principles of ACT, which he and his interns at Alliant University emphasize in the treatment process. He uses a case narrative of a 14-year-old female suffering with a functional gastrointestinal disorder, who benefited from a combination of ACT with HRV in her treatment. Gevirtz also discusses how this approach can be utilized with patients suffering from trauma, anxiety disorders, and other stress-related disorders.

Christopher Gilbert provides an article exploring how the mindfulness approach can transform biofeedback treatment at three different levels: interpersonally, intrapersonally, and in the “triad” relationship that includes two people plus the ongoing biofeedback data display. The therapist’s thoughts and emotional processing can benefit from a mindful openness and a suspension of self-judgments. The therapist’s communication with the client is transformed by a nonjudgmental attitude toward the client’s behavior. The client’s inner dialogue benefits from a suspension of self-judgments. Finally, both the client and the therapist can relate to the biofeedback signals and to the physiology involved in a more mindful and accepting manner. Gilbert uses a case narrative to show how mindfulness and acceptance can be implemented in each of these areas.

Donald Moss introduces the Pathways Model, a framework for integrating client-directed lifestyle change and the acquisition of self-regulation skills through educational processes, into treatment provided by a professional. He suggests that mindfulness approaches and mindfulness practices can be introduced at each stage in this Pathways Model. He includes a case narrative to illustrate the integration of self-directed mindfulness practices with mindfulness-based treatment guided by a professional.

**Feature Article**

Andrea Meckley Kutyana overviews the problem of tinnitus which affects 30 million persons in the United States. She conducted a pilot study involving three cases applying HRV biofeedback to tinnitus. Meckley utilized physiological measures (HRV, skin conductance, respiration, hand temperature), end-tidal carbon dioxide levels, and a questionnaire called the Tinnitus Handicap Inventory as pre- and postmeasures. Each participant went through four sessions of a resonance frequency-based HRV training. The results were mixed; some changes were noted in each case and two of the participants decreased by at least one severity level. She called for additional research with a more homogeneous tinnitus population to better assess the efficacy of HRV biofeedback for tinnitus.
References


