

# Oral Defense Announcement

University of Missouri – St. Louis Graduate School

An oral examination in defense of the dissertation for the degree  
Doctor of Philosophy in Education with an emphasis in Counseling

Elizabeth Irwin

M.Ed., Community Counseling, University of Missouri-St. Louis, 2011  
B.A., Sociology, University of Missouri-St. Louis, 2008

## **A Quasi-Experimental Study on the Effectiveness of Neurofeedback on Anxiety, Supervisory Working Alliance, and Supervisory Nondisclosure of Counselors-in-Training**

Date: July 17<sup>th</sup>, 2024  
Time: 11:00 AM to 1 PM  
Place: Remote

### **Abstract**

Anxiety among counselors has been shown to hinder the supervisory relationship. High rates of counselor anxiety has been correlated with decreased supervisory working alliance (SWA) and increase supervisory nondisclosure (SND). Current research on strategies to address counselor anxiety include, but are not limited to, mindfulness and biofeedback; two interventions that support decrease of sympathetic activation through mindful awareness. The results of these studies are mixed and high rates of anxiety continue to be reported among counselors-in-training (CIT). Neurofeedback, another technique with the goal of developing mindful awareness to decrease sympathetic activation, has been shown to support decreased anxiety among healthcare workers. However, there are no known studies assessing the effectiveness of neurofeedback on the development of CITs. This quasi-experimental study addresses this gap in current literature. The participants of this study included 20 CITs; 10 in the intervention group (neurofeedback and supervision), and 10 in the control group (supervision as usual). The findings revealed a decrease in anxiety and SND, as well as an increase in SWA among the intervention group participants.

### **Defense of Dissertation Committee**

So Rin Kim, Ph.D.  
Emily Olivera, Ph.D.  
Mary Edwin, Ph.D.  
Phillip Waalkes, Ph.D.