

# **Ray B. Smith**

## **Resumé – Research**

### **Education:**

University of Texas at Austin, BA, Arts and Sciences, 1956, MA, Educational Psychology, 1957, Ph.D., Physiological Psychology, 1967, USC, Master in Public Administration, 1981

### **Military Service:**

U.S. Army, Enlisted Service, 1958-1959; Commissioned Service, Medical Service Corps, Field Medical Officer, 1959-1962, left service as Captain

**Highest Clearance:** Top Secret, Defense Department, Washington, D.C. 1967.

### **Research Experience:**

1959-1960: U.S. Army Office of the Adjutant General, Pentagon. Army Wide Attitude and Experience Sampling with annual report to Congress. Assisted in the preparation of survey document, its distribution and collection, and in the final statistical analysis. Wrote the summary report to Congress.

1966-1967. State University of New York at Cortland. Taught introductory psychology, experimental psychology and research techniques. 11 of my students read research papers at the annual state wide psychology colloquium (of 17 papers read).

1967-1968 Senior Research Scientist at American University's Center for Research in Social Systems. Top Secret clearance, did research in psychological operations for pentagon and CINPAC. Publications were classified Secret or Top Secret.

1969 – 1980 Chief of Research, D.C. Government Mental Health Administration. First two years on NIH grant to diagnose and select patients for Jack Mendelsohn and Nancy Mellow's research on addiction at St. Elizabeths Hospital. Completed research and program evaluation studies at the Rehabilitation Center for Alcoholics. Wrote and published 15 articles for the Chief of MHA published in the D.C. Medical Journal. Taught and supervised graduate research students. Began publishing in international journals. That position was under the US Civil Service Commission at that time.

1981- 1985 Senior Scientist at NeuroSystems, Inc., Garland, Texas. Generated medical research within medical facilities, completing research protocols, trained clinicians in research methodology, assisted the research by monitoring ongoing conformity with the protocol, completed statistical analysis, and when called upon, wrote up the study and followed it to publication. (See the two Schmidt studies)

1986-1990 Peace Corps Volunteer and research on manuscripts in preparation

1991-1992 Headed up research at the Princeton Associates for Total Health, a private, multidisciplinary medical treatment facility. Completed EEG studies on the effects of microelectric treatment on the EEG of addicts, concussion patients, and mental health patients with various diagnoses.

1993-1997 Private consultant to small medical companies regarding FDA regulations and compliance, research program development, and training of clinical and professional staff.

1998-2003 Vice president for Science at Electromedical Products International, Inc., Mineral Wells, Texas. Assisted medical groups to organize and complete research by assisting in protocol development, completing statistical analyses and study summaries following studies and writing up studies, following through to publication when requested. Organized a multi-center study of the use of subsensation microcurrent in the treatment of fibromyalgia with study centers related to Robert Wood Johnson Medical School in New Jersey, LSU Experimental Science Center in Shreveport, a private medical clinic in San Diego, and a hospital in San Francisco, with 24 month follow up of the New Jersey study.

Developed the study protocol and completed statistical analysis and study summary for a double blind study of multiple sclerosis in the Tacoma Washington area.

Developed protocol and served as study statistician for a double blind study of PTSD at the VA Hospital in Houston.

Assisted a graduate student from a Seattle area university in a double blind dissertation study protocol for the study of addiction in a local Native American population.

Assisted a post doctoral biomedical engineering student from the University of Texas at Austin with his post dissertation analysis and summary of his findings for publication.

Prepared a CES monograph manuscript for publication, (currently in process for publication) which contained numerous meta-analyses of studies published over the past 30 years in the U.S.

2003 Present. Retired. Assisting small start up companies in the U.S. Small Business Administration's 8(a) program part time.

### **Professional Publications**

### Papers Published As Senior Author

Smith, Ray B. and O'Neill, Lois. Electrosleep in the management of alcoholism. *Biological Psychiatry*. 10(6):675-680, 1975.

Smith, Ray ;B. and Day, Eleanor. The effects of cerebral electrotherapy on short-term memory impairment in alcoholic patients. *International Journal of the Addictions*. 12(4):757-562, 1977.

Smith, Ray B. The use of cerebral electrostimulation in the treatment of alcohol addiction. Paper presented at U.C.L.A.'s *Winter Conference on brain Research*, Keystone, Colorado, January, 1977.

Smith, Ray B., Burgess, A.E., Guinee, V.J. and Reifsnider, L.C. A curvilinear relationship between alcohol withdrawal tremor and personality. *Journal of Clinical Psychology*. 35(1):199-203, 1979.

Smith, Ray B. Confirming evidence of an effective treatment for brain dysfunction in alcoholic patients. *Journal of Nervous and Mental Disease*. 170(5):275-278, 1982.

Smith, Ray B. Cranial Electrotherapy Stimulation, in Myklebust, J.B., Cusick, J.F., Sances, A.Jr., and Larson, S.F. (Eds), *Neural Stimulation*. Vol II, Chapter 8, 1986.

Smith, Ray B., and Shiromoto, Frank N. The use of cranial electrotherapy stimulation to block fear perception in phobic patients. *Current Therapeutic Research*. 51(2):249-253, 1992.

Smith, Ray B., Tiberi, Arleine, and Marshall, John. The use of cranial electrotherapy stimulation in the treatment of closed-head-injured patients. *Brain Injury*, 8(4):357-361, 1994.

Smith, Ray B., Cranial electrotherapy stimulation in the treatment of stress related cognitive dysfunction, with an eighteen month follow up. *Journal of Cognitive Rehabilitation*. 17(6):14-18, 1999.

Smith, R.B. Cranial electrotherapy stimulation in the treatment of stress related cognitive dysfunction with and eighteen month follow-up. *TheJournal of Cognitive Rehabilitation*, 17(6):14-18, 1999.

Smith, Ray B. Is microcurrent stimulation effective in pain management? An additional perspective. *The American Journal of Pain Management*, 11(2):64-68, 2001.

Smith, Ray B. The use of cranial electrotherapy stimulation in the treatment of multiple sclerosis. *The Original Internist* 9(3):4 pp., 2002

Smith, Ray B. Microcurrent therapies: Emerging theories of physiological information processing. *NeuroRehabilitation* 17:3-7, 2002

**Publications in Which I Developed the Study Protocol, Did the Statistical Analysis, and/or Wrote Up and Submitted the Article for Publication**

Schmitt, Richard, Capo, Thomas, Frazier, Hal and Boren, Darrell. Cranial electrotherapy stimulation treatment of cognitive brain dysfunction in chemical dependence. *Journal of Clinical Psychiatry*. 45(2):60-63, 1984.

Schmitt, Richard, Capo, Thomas and Boyd, Elvin. Cranial electrotherapy stimulation as a treatment for anxiety in chemically dependent persons. *Alcoholism: Clinical and Experimental Research*. 10(2):158-160, 1986.

Lichtbroun, Alan S., Raicer, Mei-Ming, and Smith, Ray B. The use of Alpha-Stim cranial electrotherapy stimulation in the treatment of fibromyalgia. Presented at the 15<sup>th</sup> Annual International Symposium on Acupuncture and Electro-Therapeutics, Columbia University, New York City, October 21-24, 1999.

Kirsch, Dan, and Smith, Ray B. The use of cranial electrotherapy stimulation in the management of chronic pain: a review. *NeuroRehabilitation* 14:85-94, 2000

Tyers, Steve, and Smith, Ray B. A comparison of cranial electrotherapy stimulation alone or with chiropractic therapies in the treatment of fibromyalgia. *The American Chiropractor*, 23(2):39-41, 2001

Kulkarni, Arun D., and Smith, Ray B. The use of microcurrent electrical therapy and cranial electrotherapy stimulation in pain control. *Clinical Practice of Alternative Medicine* 2(2)99-102, 2001

Lichtbroun, Alan S., Raicer, Mei-Ming, and Smith, Ray ;B. The treatment of fibromyalgia with cranial electrotherapy stimulation. *Journal of Clinical Rheumatology* 7(2)72-78, 2001

Tyers, Steve, and Smith, Ray B. Treatment of fibromyalgia with cranial electrotherapy stimulation. *The Original Internist*, 8(3):15-15-17, 2001.

**Study in Which I Developed the Study Protocol and Completed the Statistical Analysis**

Gillson, G., Richards, TL, Smith, RB, and Wright JV. A double-blind pilot study of the effect of Prokarin on fatigue in multiple sclerosis. *Multiple Sclerosis Journal* 8(1):30-35, 2002.