The Science Behind Cranial Electrotherapy Stimulation, Daniel L. Kirsch, Edmonton, Alberta: Medical Scope Publishing Corp., 1998, 207 pp., soft cover.

My overall impression of this book is highly positive. It is a concise overview of the research on Cranial Electrotherapy Stimulation to date. I think it adds significantly to the sparse literature available on CES. One of the books strengths is its format, in that it allows the reader to quickly focus on studies related to a specific disorder or studies using either a psychological or physiological index. Thus it can be utilized as a clinical resource and reference. The outlining of pivotal scientific studies and their breakdown into groups for meta-analysis again can be extremely helpful to the reader. It is also a great resource for anyone entering the field who wants an in-depth review of key studies.

The prologue by Pierre L. LeRoy, M.D. was condensed and placed the field of Cranial Electric Stimulation in a helpful context. Dr. LeRoy cited key contributors to the field which allows a novice reader to quickly understand who the seminal researchers are.

The introduction by Ray B. Smith, Ph.D. is a comprehensive overview of the history of CES. I found the initial segments about non acceptance slightly overdone and over dramatized, given that most new therapies have to prove their efficacy to gain recognition. In spite of this, I felt he cited key contributors to the field and succinctly outlined the development of the field.

The main content of this book is the 106 human and 20 experimental animal studies. As stated above Dr. Kirsch's format for presenting these studies makes this a highly readable and useful resource. Specifically, the five indexes are what allow the data in this book to be so accessible. His breakdown of the side effects and

follow-up research are helpful overviews that quickly allow the reader to analyze these results. Importantly, the presentation format highlights strong support for what appears to be a safe and effective treatment for pain, especially chronic pain and its associated symptomatology.

The post marketing survey of 500 patients between 1995 and 1998 is an analysis of a self-report survey. This is a significant departure in terms of the scientific methodology utilized throughout the rest of the book. Although I find the analysis of the reports from 500 patients helpful, the amount of space given to it and the assumptions drawn from the analysis could be deceptive to a non research oriented reader. I don't want to make too much of this other than to say that data drawn from the studies is significantly different from data drawn from a self report survey using just one (Alpha Stim) CES device. I do however think the author categorized and statistically outlined the results extremely well.

In summary, I find this book to be a great resource. It is comprehensive and the information is easily accessible. Clinicians in the field of Cranial Electro Stimulation should find it a welcome addition to their personal library. For pain management practitioners, this book will serve to increase awareness of the existence of a non-medication treatment for reduction of pain in chronic pain patients that is effective and also inexpensive, safe and easy to use.

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