

Charlotte Weaver: Pioneer in Cranial Osteopathy

Edited by Margaret Sorrell, DO. 294 pp, \$70.00. ISBN: 978-0-615-37235-8. Indianapolis, IN: The Cranial Academy; 2010.

Almost no one in the audience had heard of Charlotte Weaver, DO (1884-1964), when Margaret Sorrell, DO, presented her story as the 1998 Sutherland Memorial Lecture to The Cranial Academy. However, many members of the lecture audience—and others who had heard of the presentation—later expressed interest in further knowledge about this early osteopathic physician. Now comes *Charlotte Weaver: Pioneer in Cranial Osteopathy*, containing many of Dr Weaver's writings as compiled and explained by Dr Sorrell, to answer the following questions: Who was Charlotte Weaver? Why did she choose to study and treat the cranium? Why did her contributions of clinical work, published articles, and research fade into obscurity?

Harold Magoun, Jr, DO, contributed the foreword to this volume. Dr Weaver's poetic tribute to Andrew Taylor Still, MD, DO ("Song of Osteopathy"), and a lengthy biography of Dr Weaver, including many photographs, follow. Thirteen articles by Dr Weaver and members of her study group that were originally published in *JAOA—The Journal of the American Osteopathic Association* from 1936 to 1938 make up the largest part of the volume, followed by Dr Weaver's source acknowledgments. Numerous original figures complement the text of the articles. Clinical applications, including radiographs of the cranium that illustrate Dr

Weaver's model and 3 treatments suggested by her work, are presented after the *JAOA* articles. Appendices include a "Table of Morphological Parts" (ie, names and descriptions of cranial vertebrae), Dr Weaver's research interests, 4 articles she wrote as a family practitioner, notes to her articles, and a helpful glossary.

Charlotte Weaver was a student at the American School of Osteopathy in Kirksville, Missouri, from 1909 to 1912, when she was personally

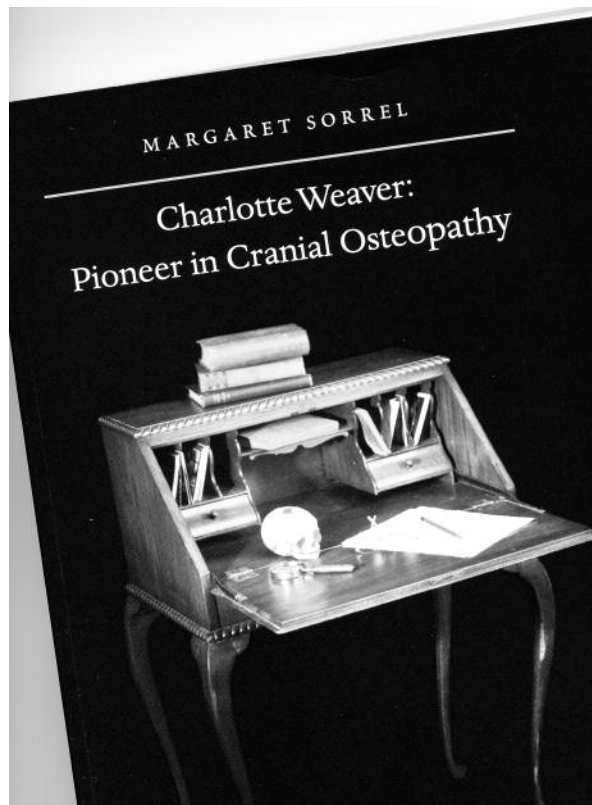
12). It was not clear to Dr Still's students how he had envisioned applying the concepts of structure and function to the cranium. Both Dr Weaver and Dr Sutherland spent many years developing their ideas about cranial osteopathy, although they apparently had only minimal interaction.

Dr Weaver's research began in 1911 while she was a student dissector. She was honored at graduation from the American School of Osteopathy with additional certificates in physiology and in practical dissection of a cadaver. By integrating extensive dissection with exhaustive study of embryology, Dr Weaver conceptualized that the embryologic tissue that differentiated into the bones of the skull corresponded to the tissue that differentiated into the vertebrae. Her original concept was that the skull could be viewed as 3 specialized vertebrae at the top of the spine, with the dorsum sellae and surrounding parts identified as the first cranial vertebra, which was originally separated from the basisphenoid by a disk (or analogous tissue). Dr Weaver saw the sphenoid as the second cranial vertebra and the occiput as the third cranial vertebra. Because a disk remains between these segments until puberty—or even later in

many cases—she concluded that these are true articulations.

Dr Weaver's 25 years of research indicated that osteopathic lesions in the form of articular somatic dysfunction can occur, particularly at the time that the skull is most plastic. The articulations could become displaced by trauma, including obstetric trauma.

Although Dr Weaver's writings



encouraged by Dr Still to investigate circulation from the head through the spinal cord. In contrast to her personal communications with Dr Still, William Garner Sutherland, DO, according to his wife, never had a private conversation with Dr Still (Sutherland AS. *With Thinking Fingers: The Story of William Garner Sutherland*. Kansas City, MO: The Cranial Academy; 1962:11-

elaborately describe embryologic development of the spine and skull, she left few clues regarding management of cranial dysfunction. In a recorded comment, she recommended that a single osteopathic adjustment be administered after radiographic documentation of displacement. However, Dr Weaver stated that she was not prepared to publish her treatment methods, because she had inadequate proof of her ideas. Without such proof, she hesitated to recommend her treatment ideas with certainty.

In 1935, a committee organized by the American Osteopathic Association's Board of Trustees listened to and considered Dr Weaver's ideas for 2 days. The committee recommended that the American Osteopathic Association and the colleges of osteopathic medicine continue to support her investigations.

A fascinating outline of a planned but uncompleted book by Dr Weaver is presented in *Charlotte Weaver: Pioneer in Cranial Osteopathy*. It includes chapters with such varied topics as the embryologic development of the cranium, consequences of tissue disruption, fractures of the basicranium, reconstruction of the traumatized base, possible resulting psychoneurotic syndromes, pituitary failure, muscular dystrophies, developmentally delayed children, and even war casualties.

Early in practice in her native Ohio, Dr Weaver operated a private

clinic for patients with psychiatric disorders, including indigent patients and school-aged children with mental disturbances. In 1927, a charitable foundation was created to support her work. She conducted her research in the United States and France, studying anatomic dissection of the skull, radiologic techniques, endocrinology, neuropsychiatric disorders, and muscular dystrophy. Dr Weaver also lectured extensively both at home and abroad. Dr Sutherland attended some of Dr Weaver's lectures in 1938 and presented her with a copy of his book, *The Cranial Bowl*. Dr Sutherland later cited Dr Weaver's work in his own published work.

The research articles published by Dr Weaver and her students and presented in this book are information-dense and require time to digest. Fortunately, the well-written précis offered by Dr Sorrel in advance of each article explains the major concepts in an intelligible, simplified manner, with references to portions of the original article for further study.

Charlotte Weaver was elected to the American College of Neuropsychiatrists in 1940 and became certified in neuropsychiatry in 1942. These were unusual achievements for an osteopathic physician in that era. Neuropsychiatrists of the time were interested in the functions of specific brain structures, but they did not have the technology that is currently available for investigating those functions. Dr Weaver had been taught metaphysical

ideas by her mother, and she became fascinated with the pineal gland and vibratory energies that she believed might affect the gland. Speculations in her works include ideas about vibratory influences on the brain—concepts that cannot be substantiated. Before her death at age 80 in 1964, she combined archaeological research, philologic studies, her mother's teachings, and her own thoughts in writings that explored metaphysical concepts. Dr Sorrel notes that these writings are being prepared for publication in a book by Hexagon Press of St Louis, Missouri.

Dr Weaver's original ideas fell into obscurity after her death—perhaps because her study group failed to teach her concepts in an organized way, as Dr Sutherland's students did with his concepts. The painstakingly researched *Charlotte Weaver: Pioneer in Cranial Osteopathy* presents the ideas of the first cranial osteopathic researcher in a sympathetic yet objective manner. This book is an excellent contribution that should be of interest to medical historians and to osteopathic physicians who work with the cranium based on a structural and functional approach consistent with Dr Still's teachings.

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