



Early research: The A.T. Still Research Institute and Louisa Burns

By any measure, A.T. Still was the osteopathic medical profession's first researcher. His powers of observation and keen clinical insight led to many diagnostic and therapeutic discoveries that are relevant today. For example, he saw the vital importance of visceral and somatic interactions in both the ability to diagnose dysfunction by somatic palpation and the effect of treating somatic dysfunction on the course of visceral disease.

Soon after the founding of the first school of osteopathy, the leaders of the osteopathic medical profession recognized the necessity of research to show the scientific basis of the profession's claims. Various projects were begun at Kirksville, but little was done formally in the first 20 years of the profession to formalize research efforts. Still celebrated his 85th birthday in August 1913. The first of the three articles reprinted this month is an editorial outlining the beginning of the A.T. Still Research Institute. Editor H.L. Chiles calls for donations to a research fund then recently authorized by the Board of Trustees. The time was right. Osteopathic physicians in Illinois had just purchased a large residence as a permanent home for the research institute (pictured in the article). Still had admonished the profession to carry on his research now that he was getting older. He and others realized that much had to be done quickly to perpetuate the profession. In 1907, plans had been formalized for an endowed teaching and research college, but funding had not materialized well. With the formal call for more research, this institution was renamed the A.T. Still Research Institute in 1913. John Deason became the institute's first director and, in 1914, Louisa Burns, MS, DO, joined the institute. In about 1917, she assumed the directorship when Deason returned to private practice. Again, however, funds were not forthcoming at the hoped-for level. Burns survived on meager funds and later moved the Institute to California, where it continued with varying funding levels into the early 1950s.

Burns had been active in osteopathic research well before joining the institute. She began her research at the Pacific College of Osteopathy, published various articles before 1910 and, by 1911, she had written two books based on her research. In the first of her two articles reprinted here and originally published in 1907, she outlines her studies of viscerosomatic and somatovisceral reflexes. Having worked with both animals and humans, she presents data on the relationships between various visceral and somatic structures. This was groundbreaking work.

It showed that stimulation of various viscera caused activity in muscles at various vertebral levels and that somatic stimulation caused alterations in visceral function. The work literally confirmed the clinical observations made years before by Still. The reader will recognize here the beginning of several palpatory "maps" now common in the profession which show relationships between palpated dysfunction and suspected visceral origins. It is remarkable that this work was done in 1907.

In the second article, published in 1921, Burns puts forward her observations on the effects of somatic dysfunction ("osteopathic lesions") on function. She seems to be making many statements that seem unsubstantiated and even far-fetched. By this time, however, she had performed hundreds of studies of the effects of spinal dysfunctions on skeletal muscle and visceral functions. She had published dozens of articles and written two more books. Her database was vast, and her ability to integrate the data was impressive. She even states on current page 260 (page 602 of the article as originally published) "impulses entering any one spinal segment are enabled to act upon the centers of adjacent segments, perhaps for six or more segments upward and for four or more segments downward." This was similar to the finding made by Denslow, Korr, and Krems 25 years later.¹ On the next page, Burns intimates that experience can alter spinal reflex excitability, a realization not appreciated until the 1970s.

The research effort of the early profession suffered from problems of underfunding and lack of sufficient quantity, problems still evident today. It was, however, driven by the clinical findings of the osteopathic philosophy and practice. It produced solid data, much of which was well ahead of general knowledge. Burns and others in that period were true pioneers. Their work needs to be revisited. It contains much of value that should not be ignored.

Michael M. Patterson, PhD

JAOA Associate Editor

Reference

1. Denslow JS, Korr IM, Krems AD. Quantitative studies of chronic facilitation in human motoneuron pools. *Am J Physiol* 1947;150:229-238.