

The AAO

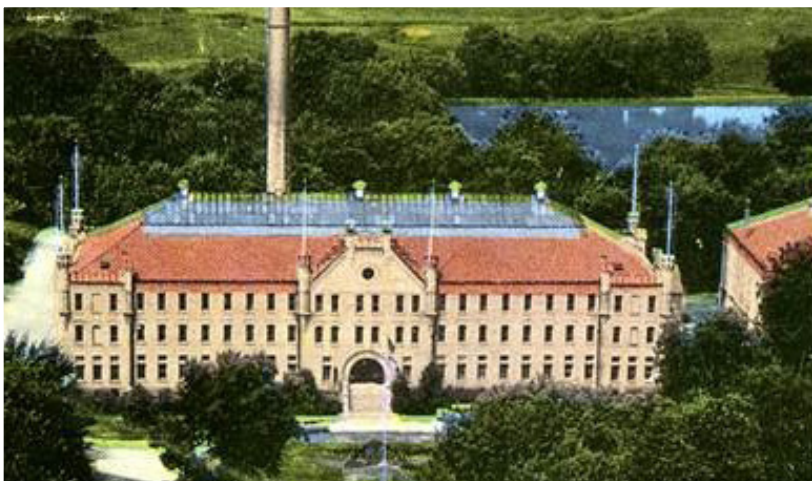
FORUM FOR OSTEOPATHIC THOUGHT

JOURNAL

Official Publication of the American Academy of Osteopathy •

TRADITION SHAPES THE FUTURE

VOLUME 24 • NUMBER 4 • WINTER 2014



In the early half of the 20th century, the Still-Hildreth Sanatorium in Macon, Missouri, reported excellent recovery rates. Leslie M. Ching, DO, compared reported rates to extant patient records, and she describes her findings in “The Still-Hildreth Sanatorium: A History and Chart Review” beginning on page 12.

The American Academy of Osteopathy is your voice...

in teaching, promoting, and researching the science, art, and philosophy of osteopathic medicine, with the goal of integrating osteopathic principles and manipulative treatment in patient care.

The AAO Membership Committee invites you to join the American Academy of Osteopathy as a 2014-15 member. The AAO is your professional organization. It fosters the core principles that led you to become a doctor of osteopathic medicine.

For \$5.27 a week (less than the price of a large specialty coffee at your favorite coffee shop) or just 75 cents a day (less than the cost of a bottle of water), you can become a member of the professional specialty organization dedicated to you and osteopathic manipulative medicine (OMM).

Your membership dues provide you with:

- a national advocate for OMM, both within the profession and with healthcare policy-makers and third-party payers.
- referrals of patients through the “Search for a Physician” tool on the AAO website and from calls to the AAO office.
- discounts on continuing medical education at the AAO’s annual Convocation and its weekend courses.
- automatic acceptance of AAO-sponsored courses by the American Osteopathic Board of Neuromusculoskeletal Medicine, the only certifying board for manual medicine in the medical world today.
- networking opportunities with peers.
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- complimentary subscription to *The AAO Journal*, published electronically four times annually.
- complimentary subscription to the online *AAO Member News*, published 8 times annually.
- weekly *OsteoBlast* e-newsletters, featuring research on manual medicine from peer-reviewed journals around the world.
- practice promotion materials, such as the AAO-supported “American Health Front!” segment on OMM.
- discounts on advertising in AAO publications, on the AAO website, and at the AAO’s Convocation.
- an earned fellow designation of FAAO, which recognizes DOs for promoting OMM through teaching, writing, and professional service and which is the only earned fellowship in the osteopathic medical profession.
- promotion of research on the efficacy of osteopathic medicine.
- support for the future of the profession through the Student American Academy of Osteopathy, the National Undergraduate Fellows Association, and the Postgraduate American Academy of Osteopathy.

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**Physician registration is now open
for the AAO’s 2015 Convocation.**



**“Life in Motion: The Science, Philosophy
and Art of Osteopathic Medicine”
Richard G. Schuster, DO, program chair**

**Louisville, Kentucky
March 11-15, 2015
Register online at www.academyofosteopathy.org.**



Photos courtesy of Louisville Convention & Visitors Bureau



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The AAO Journal is the official publication of the American Academy of Osteopathy. Issues are published four times a year.

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ISSN 2375-5717 (online) ISSN 2375-5776 (print)

On the cover: Still Hildreth Osteopathic Sanatorium Collection, Museum of Osteopathic Medicine, Kirksville, MO [PH808a and B1859]. Images have been altered.

THE AAO FORUM FOR OSTEOPATHIC THOUGHT

JOURNAL

Official Publication of the American Academy of Osteopathy®

TRADITION SHAPES THE FUTURE • VOLUME 24 • NUMBER 4 • WINTER 2014

The mission of the American Academy of Osteopathy is to teach, advocate, and research the science, art, and philosophy of osteopathic medicine, emphasizing the integration of osteopathic principles, practices, and manipulative treatment in patient care.

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Quarter page (3.75" x 5")	\$200	\$190	\$180
Classified	\$1 per 7 characters		



AAO Calendar of Events



Mark your calendar for these upcoming Academy meetings and educational courses.

2015

January 20	LBORC poster presentation task force's teleconference, 8 p.m. Eastern time	March 11	AAO Board of Trustees' meeting, 8 a.m. to noon, Eastern time—Louisville Marriott Downtown in Kentucky
January 28	Membership Committee's teleconference, 8 p.m. Eastern time	March 11	AAO Board of Governors' meeting, 1 to 5 p.m., Eastern time—Louisville Marriott Downtown in Kentucky
January 28	Committee on Fellowship in the AAO's teleconference, 8:30 p.m. Eastern time	March 11-15	2015 AAO Convocation—Life in Motion: The Science, Philosophy, and Art of Osteopathic Medicine —Richard G. Schuster, DO, program chair—Louisville Marriott Downtown in Kentucky and the Kentucky International Convention Center
February 6-7	AAO Education Committee's meeting, AAO offices, Indianapolis	March 12	AAO annual business meeting and luncheon, 12:15 p.m. Eastern time—Louisville Marriott Downtown in Kentucky
February 16	President's Day—AAO offices closed		
March 8-10	Pre-Convocation Course: Brain, Vision, Membranes and Cerebrospinal Fluid —Bruno J. Chikly, MD, DO (France)—Kentucky International Convention Center in Louisville		
March 8-10	Pre-Convocation Course: FDM of the Axial Spine—Module 2 —Todd A. Capistrant, DO, MHA— Kentucky International Convention Center in Louisville		

Still Exaggeration Technique

A Workshop in Classical Osteopathy
22.5 Category 1A AOA Credits
June 25-27, 2015 - Fort Worth, TX

UNT HEALTH
SCIENCE CENTER

- Rediscover techniques lost to Osteopathy
- Master techniques on fellow physicians AND real patients
- Learn from some of the foremost educators in the profession
- Designed and Chaired by Jerry Dickey, DO, FAAO

Class size is strictly limited to 40 participants! Don't miss out on the first publicly available course!

More Info & Register Online
at <http://ce.unthsc.edu>

A course review written
by Raymond J. Hruby, DO, MS, FAAO
is available on the website.



View From the Pyramids

Albert Einstein said, “Anyone who has never made a mistake has never tried anything new.” It is with this spirit that I approach serving as *The AAO Journal’s* interim scientific editor.

The osteopathic medical profession is moving into a new sphere of existence, and the *AAOJ* must follow suit. As we transition to a single accreditation system for graduate medical education and as the number of osteopathic medical school graduates increases annually, the *AAOJ* must reinforce osteopathic principles and practice in the context of current scientific standards.

To make the *AAOJ* stand out among other peer-reviewed academic journals, we must move beyond relying on case reports as proof of the scientific merit of osteopathic manipulative medicine. We must question what is acceptable as evidence. This challenges our journal and our profession to do more than set down in words narratives that read like, “My patient had this problem. I did this treatment. Now, you can too,” and claim them to be evidence. In time, the articles published in the *AAOJ* must meet the same criteria as contributions to any journal indexed in MEDLINE .

Presently, researchers at The Osteopathic Research Center in Fort Worth, Texas, and at other osteopathic medical institutions are busy conducting both mechanistic and outcomes trials. Many talented individuals are devoting a great amount of interest, attention, and effort to identifying the best methods for evaluating osteopathic medicine’s peerless combination of art, science, and palpatory experience. This effort will lead to research that has the potential to validate what many of us already know and to back up our claims in discussions with other clinicians.

On the other hand, as my wife, a fellow osteopathic physician, is fond of asserting, “Lack of evidence is not evidence of lack.” No study can be applied directly to any individual patient because no individual’s health issues are limited to the exact parameters of any study. When we see and treat our patients, our interactions do not follow a script rooted in a metric soup of empiric data, but rather our interactions are akin to improvising on a musical instrument. It is Brownian motion at the macroscopic level and applied to medicine. The best we can do is to use what evidence is available to us via journals, textbooks, colleagues, our own experience, and our understanding of principles to treat each patient who walks through

the door and to follow each encounter to the best-possible end point for the patient.

US President Theodore Roosevelt said, “Do what you can, with what you have, where you are.” We studied anatomy, physiology and medicine in osteopathic medical school, and with those basic blocks, we synthesize osteopathy on a moment-to-moment basis in our practices.

It is on the shoulders of those who came before us that we are privileged to practice. Now, we are being called to hold up and examine what our mentors and their mentors taught. We need to do that through state-of-the-art research, and we need to publish our research—regardless of the results—in the *AAOJ* and other peer-reviewed journals.

I do not know what Andrew Taylor Still, MD, DO, would think of the current state of medicine, but I do know that he would want those who carry on the tradition of osteopathy to do so boldly.

Brian E. Kaufman, DO, FACP, FACOI
AAOJ interim scientific editor

For more information on terminology
used in *The AAO Journal*, see the

Glossary of Osteopathic Terminology

developed by the American
Association of Colleges of Osteopathic
Medicine’s Educational Council
on Osteopathic Principles.

A Review of “Still Exaggeration Technique: Classical Osteopathy” Workshop and DVDs by Jerry L. Dickey, DO, FAAO

Raymond J. Hruby, DO, MS, FAAODist

Osteopathic physicians familiar with the history of the osteopathic medical profession know that its founder, Andrew Taylor Still, MD, DO, did not leave many written descriptions of his manipulative techniques. On the contrary, Still was known for insisting that his students thoroughly understand the anatomy and physiology of the human body and the normal workings of the body. Still was confident that his students could use this understanding to reasonably design and individualize treatments for patients.

Jerry L. Dickey, DO, FAAO, has spent more than 40 years studying osteopathic medicine’s history and researching the nature of Still’s techniques. Dickey is a well-known, long-standing teacher and practitioner of osteopathic principles and practice. In addition, he is a third-generation osteopathic physician whose osteopathic ancestors date back far enough to have learned from Still himself and from a number of Still’s early notable students.

As a result of his unrelenting efforts, Dickey has synthesized his findings into a thorough and cohesive description of Still’s theory and methods and has determined practical applications of this information in osteopathic manipulative treatment. Dickey’s goal now is to make this information available to osteopathic physicians through a hands-on workshop, as well as supplementary study and review materials in a set of 2 DVDs. To that extent, Dickey developed an invitation-only workshop designed to “train the trainers” in what Still’s techniques may have looked like.

I attended this unique and enlightening workshop June 26-28, 2014. A major goal of this workshop was to prepare the attendees to assist Dickey when he presents future courses to interested physicians.

The first part of the workshop consists of Dickey describing Still’s collective experience that led to the development of what are known as the *Still exaggeration techniques*. Although most of us in attendance think of ourselves as students of osteopathic medicine’s history, Dickey’s presentation contained a considerable amount of new information.

Dickey spends the remainder of the workshop teaching attendees how to apply Still’s principles in the form of efficient, practical, and clinically useful techniques. We learned technique applications for all body regions, and we had sufficient time to practice the techniques and receive coaching and motivation from Dickey.

Although all of us who attended this special workshop are experienced osteopathic practitioners, we all gained insights and abilities during these three days. We learned new and efficient ways to engage somatic dysfunctions through vector forces that aid in engaging barriers to motion, and we learned how to apply various activating forces to alleviate these somatic dysfunctions and restore physiologic motion. In addition, the techniques we learned allow us to treat patients more effectively and ergonomically in less time.

Dickey’s 2-DVD set supplements this workshop, allowing attendees to review the information on their own time. In the DVDs, Dickey thoroughly describes his journey of discovery, the basis for Still’s method of treatment, and applications of these techniques throughout the body. Dickey provides a well-organized, easy-to-understand elaboration of the Still exaggeration techniques, giving an extensive presentation on the principles of the techniques and thoroughly demonstrating the techniques’ applications.

On the first disc, Dickey provides the principles and concepts osteopathic physicians and osteopaths need to understand to properly apply the Still exaggeration techniques. Dickey delves into the history and development of the techniques, and he goes on to discuss and demonstrate force vectors and activating forces. Dickey wraps up the first disc with a segment on how to examine each body region for somatic dysfunctions that may be amenable to the Still techniques.

On the second disc, Dickey demonstrates how to perform the exaggeration techniques, using the vector principles and activating forces described on the previous disc. Dickey shows viewers how to apply the exaggeration techniques, demonstrating them on all spinal regions, the rib cage, the pelvis, and the extremities. This

Continued on page 11

PRE-CONVOCATION COURSE: FDM OF THE AXIAL SPINE—MODULE 2

March 8-10, 2015 • Kentucky International Convention Center in Louisville

Course Description

The fascial distortion model (FDM), an anatomical perspective developed by the late Stephen P. Typaldos, DO, addresses musculoskeletal injury by identifying and treating fascial distortions. According to the model, six distortions are responsible for most musculoskeletal injuries and pain. Correcting these distortions restores biotensegrity and symmetrical motion. The FDM provides health care professionals with insight into fascial function and relieving patients' pain.

Course participants will be instructed in body language and verbal cues that describe pain caused by fascial distortions, and they will learn how to resolve those distortions. This course will focus on applying FDM to treat the axial spine. The course will have separate sections on the cervical spine, thoracic spine, lumbar spine, sacrum and pelvis, and it will cover inversion treatments based on the FDM.

Completion of the first FDM module is not required.

Course Location

Kentucky International Convention Center

221 S. Fourth St.
Louisville, KY 40202-2903

Stay at the [Louisville Marriott Downtown](#) for as little as \$179 per night. Call (502) 627-5045, and mention that you are attending the AAO Convocation to get the best rate.

Program Chair

The medical director of the Tanana Valley Clinic in Fairbanks, Alaska, **Todd A. Capistrant, DO, MHA**, earned both his doctor of osteopathic medicine degree and his master in health administration degree in 1997 from the Des Moines (Iowa) University College of Osteopathic Medicine. A member of the governing board of the American Fascial Distortion Model Association, he is one of only three physicians in the United States who are currently certified to teach seminars on the FDM. Dr. Capistrant specializes in osteopathic manipulative medicine, and he is certified by the American Board of Family Medicine. He serves as a regional dean for the Pacific Northwest University of Health Sciences, College of Osteopathic Medicine in Yakima, Washington. He enjoys working with athletes to maximize performance and with pregnant women to relieve pain.



Course Times

Sunday, Monday and Tuesday: 8 a.m. to 5:30 p.m.
Breakfast and lunch are on your own. Coffee will be provided.

Continuing Medical Education

24 credits of NMM-specific AOA Category 1-A CME are anticipated.

Travel Arrangements

Contact Tina Callahan of Globally Yours Travel at (800) 274-5975 or globallyyourstravel@cox.net.

Registration Form

FDM of the Axial Spine—Module 2 March 8-10, 2015

Name: _____ AOA No.: _____

Nickname for badge: _____

Street address: _____

City: _____ State: _____ ZIP: _____

Phone: _____ Fax: _____

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By releasing your fax number and email address, you are giving the AAO permission to send marketing information regarding courses to your fax and email.

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Registration Fees

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	With Convo	Without Convo
AAO physician members	\$1098	\$1220
AAO resident and intern members	\$918	\$1020
Nonmember physicians	\$1278	\$1420
Nonmember residents and interns	\$1098	\$1220

Register by Feb. 22, 2015, to ensure your reservation.

The AAO accepts check, Visa, MasterCard and Discover payments in U.S. dollars. The AAO does not accept American Express.

Credit card No.: _____

Cardholder's name: _____

Expiration date: _____ 3-digit CVV No.: _____

Billing address (if different): _____

I hereby authorize the American Academy of Osteopathy to charge the above credit card for the full course registration amount.

Signature: _____



Register online at www.academyofosteopathy.org, or submit the registration form and payment by email to swarner@academyofosteopathy.org, by mail to the American Academy of Osteopathy, 3500 DePauw Blvd., Suite 1100, Indianapolis, IN 46268-1136, or by fax to (317) 879-0563.



TOURO UNIVERSITY CALIFORNIA

Chair of OMM Department

Touro University California, a rapidly growing university offering graduate programs in health sciences and education, has an excellent opportunity for a Chair of OMM Department for Touro University, College of Osteopathic Medicine on our Mare Island campus. The university is part of the Touro College and University System and is located on the northern tip of San Francisco Bay in Vallejo, California. Touro University California is an independent, non-profit Jewish-sponsored institution. It has 1,403 students in three graduate professional colleges (Osteopathic Medicine, Pharmacy, Education and Health Sciences).

REPORTS TO: Dean, College of Osteopathic Medicine

POSITION DESCRIPTION:

The Chairperson is the academic and administrative leader of the Osteopathic Manipulative Medicine department of 6 faculty and 6 student Fellows who serve a class size of 125 students. In addition to these faculty, a highly qualified cadre of community based Osteopathic Physicians participate in the pre-clinical and clinical curricula. Many have national and international reputations that enrich didactic training and further increase the already high faculty to student ratio in the laboratory setting. The Chairperson reports to the Dean of the College of Osteopathic Medicine. Through his/her authority over the department, the Chairperson is responsible for the day-to-day operation of the department and the long-term development of the department.

SPECIFIC RESPONSIBILITIES:

- Oversight of OMM clinical activity. The Chair of the department is responsible for the allocation and appropriate participation of faculty to provide clinical care and educational settings. Faculty participation in clinical settings is an important part of the educational and service aspects of TUCOM. The current settings include providing OMM services at the joint TUCOM/Solano County Family Health Services clinic. This clinic has over 30,000 patients and TUCOM provides OMM services full time as OMM specialists. The faculty also provides OMM precepting at the Student Run Free Clinic and other community settings.
 - The integration of OMM education into the regional clerkships, and in the future residency education, is important to the mission of TUCOM and the department.
 - In the 2014-15 academic year a new clinical facility will be completed on campus, which will expand OMM services.
- Directing faculty research. TUCOM seeks to be a national leader in the demonstration of osteopathic manipulative treatment efficacy. The Chairperson is expected to promote a faculty-wide initiative within the department to demonstrate the various ways that osteopathic manipulative treatment improves patient outcomes. The Chairperson will work closely with the Associate Dean for Research and with senior TUC leadership to establish a culture of active research on campus and national identity of the department's strengths.
- Staffing and distribution of curriculum responsibilities. The department provides a lecture and laboratory sequence in each of the pre-clinical semesters. In the clinical curriculum, the department provides an OMM clerkship and also works with adjunct Osteopathic Physicians to offer a wide range of experiences in preparation for continued use of these principles and practices through the later phases of their education and practice. Integration of OMM and OPP in the clinical curriculum is a high priority for the Chairperson and the department.
- Leadership. The Chairperson represents the OMM department in college-wide leadership councils and standing committees such as Curriculum and Admissions Committees. The Chairperson is responsible for maintaining the

department's fulfillment of COCA accreditation standards, annual reporting to AACOM and AOA, and for participation in council and committee service at the national level.

- Faculty development. In keeping with accreditation standards, TUCOM provides as much osteopathic principles and philosophy faculty development as possible both within the OMM department and across the college. The Chairperson coordinates and sustains this faculty development program.

QUALIFICATION(S):

- Graduate of an AOA accredited College of Osteopathic Medicine.
- AOA board-certified through the American Osteopathic Board of Neuromusculoskeletal Medicine or have received a Certificate of Special Proficiency in Osteopathic Manipulative Medicine (C-SPOMM).
- Three (3) years proven experience in teaching and academic leadership in a medical education setting.
- Demonstrated leadership and productivity in the areas of clinical or professional service, scholarly activity, medical research or education.
- Evidence of successful scholarly and/or research accomplishments.
- Good standing with all regulatory and governmental boards and agencies.

Applications are reviewed in the order received, and for full consideration should be received prior to 1 April 2014. Finalists will be scheduled for a public presentation and a series of interviews on the TUCOM campus.

Salary is competitive and commensurate with background and experience. Letters of interest, application and curriculum vitae should be submitted via one of the following methods:

Search Committee

1. Complete an online application: <http://apptrkr.com/440618>
2. AND Email CV: Apply@tu.edu
Subject: Your Name, OMM Chair OR
3. Mail: Touro University California 1310 Club Drive Vallejo, CA 94592

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Touro is a system of Jewish-sponsored non-profit institutions of higher and professional education. Touro College was chartered in 1970 primarily to enrich the Jewish heritage, and to serve the larger American community. Approximately 19,000 students are currently enrolled in its various schools and divisions. Touro College has branch campuses, locations and instructional sites in the New York area, as well as branch campuses and programs in Berlin, Jerusalem, Moscow, Paris, and Florida. Touro University California and its Nevada branch campus, as well as Touro College Los Angeles, are separately accredited institutions within the Touro College and University System. For further information on Touro College, please go to: <http://www.touro.edu/media/>



TOURO UNIVERSITY
CALIFORNIA

Ocular Osteopathy: Worth a Second Look

Kristie Olds, DO, and Jonathan N. Bruner, DO

Introduction

Osteopathic medicine is defined by the four tenets that the human body is a dynamic unit of function, the body possesses self-regulatory mechanisms that are self-healing in nature, structure and function are intimately related at all levels, and rational treatment is based on these principles.¹ Is the eye any exception? When discussing somatic dysfunctions and musculoskeletal complaints, the eye is typically not the first thought that comes to mind. However, there are several mentions throughout osteopathic literature of osteopathic manipulative treatment (OMT) being utilized for ocular disturbances. This article will discuss 6 specific disorders and compare current therapies with OMT as described by Andrew Taylor Still, MD, DO.

Importance of Circulation and Innervation

Still began each ocular treatment with a careful observance of the form and function of the eye, taking into consideration any surgical or structural changes. He believed that “most all of the eye troubles are simply effects of failure in the nerve and blood supply.” Once form and function were evaluated, Still continued his examination by investigating the blood and nervous supply to and from the eye. This investigation began with the carotid arteries and moved upward from the heart. Still addressed any areas of somatic dysfunction in the upper thoracic spine (T1-4), the upper ribs, clavicles, and the cervical spine. When he was satisfied with the treatment, Still then moved on to more specific treatments as described below.²

Specific Treatments

Lachrymation (Epiphora)

Lachrymation, or runny eyes, is typically more a symptom than a disease. Excessive tearing is the result of either overproduction of tears or obstruction of the nasolacrimal system. Commonly allergies, foreign bodies, infections, or inflammation are responsible for the symptomology. Modern treatment attempts to address the underlying cause. Removal of foreign bodies, antibiotic or corticosteroid eye drops, or surgical dilation of the tear ducts may be used.³

From the Michigan State University College of Osteopathic Medicine in East Lansing.

Financial disclosures:
None reported.

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Submitted for publications July 22, 2014; final revision received August 25, 2014; accepted November 12, 2014.

Still described frequently being able to cure patients by adjusting the axis on the atlas alone, but he noted that resistant cases could require treatment down to the level of C5.²

Pterygium

Pterygia are wedge-shaped growths of fibrovascular conjunctiva that typically span medially from the nasal edge of the eye laterally. They affect 1% to 25% of the world's population, and they may correlate to ultraviolet exposure. Typically, these growths are benign and asymptomatic. However, some pterygia become red and inflamed, causing symptoms of irritation. Growth near the visual axis can interfere with visual acuity.

Modern treatment is aimed at symptomatic relief with artificial tears. Surgical removal is limited to patients who are experiencing

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visual impairment, restricted eye movement, or unrelenting inflammation. Following surgery, 30% to 90% of pterygia return.⁴

To treat patients for pterygia, Still described placing one thumb on the upper part of both nasal bones and then applying a firm pressure down toward the teeth. Still noted that by doing this, any outflow obstruction to a pterygium would be alleviated, causing involution of the pterygium in 2 to 4 weeks.²

Granulated Lids (Blepharitis)

Granulated lids result from chronic inflammation, and they are characteristically irritated and red. Symptoms can be quite bothersome and typically include a gritty sensation in the eye, burning, tearing, itching, crusting and flaking of the skin around the eyelids, photosensitivity, and blurry vision. Modern treatment includes using warm compresses followed by lid massage to encourage drainage of the Meibomian glands, promoting good eyelid hygiene with baby shampoo or special washes to help remove debris, and prescribing antibiotics if bacterial etiology is suspected.⁵

Still addressed C1-rib 2, and then he treated patients' nasal bones in the same manner in which he treated patients for pterygium. He finished the treatment by carefully placing a fingertip under the eyelid and passing the fingertip from side to side to induce moderate stretching of the lid. Still suggested that the fingernail be well trimmed and the finger soaked to soften it prior to administering the technique. Dipping the finger in petroleum jelly, milk, or any soft oil would reduce the chances of further irritating the eye.²

Astigmatism

Astigmatism is a refractive error of the eye caused by a warped corneal surface or an irregularly shaped lens. The distortion in shape prevents light from correctly focusing on the retina, thus altering visual acuity. Most people have some degree of astigmatism, and mild cases may be asymptomatic. Symptomatic cases are treated with glasses, contact lenses, orthokeratology, or laser correction.⁶

Still addressed C1-C6, with special attention to C5-C6. He believed C5-C6 give nourishment to the eyes and the lack of nourishment causes astigmatism. According to Still, this treatment helped many patients with astigmatism if drugs had not already damaged the patients' eyes.²

Strabismus

Strabismus occurs when a patient's eyes do not focus in synchrony with each other. Strabismus has multiple causes, including abnormal muscle coordination, abnormal neural transmission

to the ocular muscles, improper control from the brain, and eye injuries. Current treatments are aimed at improving eye alignment and coordination, which can involve the use of corrective lenses or prisms, muscular therapy, or even surgical intervention.⁷

Still addressed C1-T1, again with special attention to C5-C6. Many cases of strabismus responded to this treatment, but Still noted that long-standing cases of strabismus required surgical intervention.²

Cataracts

Cataracts cloud the ocular lens. Most cataracts are linked to aging, but they can be secondary to other ocular diseases, either traumatically induced or congenital. Cataracts can affect visual acuity in two different ways: A normally clear lens may take on a yellow-brown color that distorts color vision, or the proteins that comprise the lens may degenerate, clumping together and obstructing images from clearly reaching the retina. Early treatments include new glasses, brighter lighting, antiglare sunglasses, and magnifying lenses. If the condition persists, surgical replacement of the lens with an artificial one is the only option.⁸

To treat patients for cataracts, Still addressed the neck and then focused his treatment on the lens itself by placing the soft part of a finger against the side of the affected eye and then gently tapping that finger with another finger a few times. Still explained that he tapped with just enough force to cause the eye to ache slightly. He treated patients twice the first week and then only once a week until the condition resolved. He explained that overly aggressive treatment would not allow the eye enough time to re-establish a normal nerve and blood supply.²

Further Research

Still is not the only one who wrote about treating ocular conditions with osteopathic manipulation. Elmer D. Barber, DO, wrote two books on osteopathy that contained multiple descriptions of ocular treatments. Similar to Still, Barber described beginning with a general treatment of the neck. He then used an index finger to press under the edge of the bone surrounding the eye to free ducts and glands and to stimulate circulation. Barber concluded his treatment with a circular massage over the patient's temples to "move all the muscles as deeply as possible."¹¹

In 1928, Frank Chapman, DO, identified what have come to be known as Chapman reflexes. These reflexes have had numerous descriptions over the years, and they currently are defined as "a system of reflex points that present as predictable anterior and posterior fascial tissue texture abnormalities (plaque-like changes

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or stringiness of the involved tissues) assumed to be reflections of visceral dysfunction or pathology.”¹¹

Charles Owens, DO, noted that Chapman described ocular points for both retinitis and conjunctivitis. According to Chapman, both conditions share an anterior reflex point on the front of the humerus, but the two do not share a posterior point. Retinitis is associated with a posterior reflex point at the suboccipital nerve, which produces the characteristic blurring that accompanies retinitis and the desire to rub the affected eye. In contrast, conjunctivitis produces a posterior reflex point at the anterior branch of the suboccipital nerve as it reflects upward over the occipital bone, resulting in itching, burning, and stinging.¹³

Barber and Chapman mentioned that gynecologic issues, gastrointestinal disease, and other organ disease often aggravate diseases of the head and should be considered when patients have chronic eye disease. Once the underlying disease is addressed, the eyes become amenable to treatment.^{12,13}

Research on applications of manipulation for ocular problems has continued throughout the past century, with extensive efforts in the realm of osteopathic cranial manipulative medicine (OCMM). James S. Jealous, DO, and Paul Dart, DO, have done extensive research in functional ocular medicine, including investigating visual strain induced by corrective lenses. They have further documented success in resolving strabismus and other binocular problems.⁹ In 2010, a pilot study conducted by Mark Eric Sandhouse, DO, revealed promising data on OCMM's effects on visual function.¹⁰

Conclusion

Though technology has greatly advanced during the past 100 years, the tenets of osteopathic medicine remain unchanged. According to these tenets, all diseases, including those of the eye, should be considered amenable to OMT. Arthur G. Hildreth, DO, one of Still's students, wrote, “I wish I could paint a word picture so clear that it would be indelibly stamped in your minds and hearts what osteopathic manipulative treatment can do for diseases of the eye.”¹⁴

Further research is needed to test the effectiveness of OMT as a first-line treatment or at least as a preventive measure for ocular disease.

References on page 33

Workshop and DVD on Still Techniques

(continued from page 6)

disc also includes an explanation of functional techniques, which are among the most notable extensions of Still's exaggeration techniques.

Of particular interest at the conclusion of the second disc, Dickey demonstrates self-treatment approaches, which should be appreciated by osteopathic physicians who practice in places where no other DOs are nearby.

I recommend Dickey's workshop and his DVDs to any student or practitioner of osteopathic manipulative medicine wishing to learn another treatment modality. In addition to learning the Still techniques through Dickey's workshop and DVDs, learners will obtain greater insight into how the osteopathic medical profession developed and what Still's mindset was as he developed his approaches to patients. ■

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The Still-Hildreth Sanatorium: A History and Chart Review

Leslie M. Ching, DO

Abstract

The Still-Hildreth Sanatorium (SHS) in Macon, Missouri, was open from 1914 to 1968. Its mission was to provide “osteopathic treatment of mental and nervous diseases,” but it also acted as a hospital. This article is a review of the sanatorium’s history and patient records. The first section is a history of SHS based on published materials and interviews with former staff members. The second section discusses the theory and history of using osteopathic manipulative treatment to treat patients with psychiatric illnesses. The third section examines 1891 extant patient records from SHS, published case reports, and treatment results, and it discusses limitations of the data. Patient records were compared with a published report of recovery rates during the same period to evaluate the high rates of recovery in the published reports. The comparisons are limited and no firm conclusions can be made due to the disparities in patient totals and results, but many patients appear to have recovered or improved. The article concludes with a discussion of further research possibilities.

Introduction

Old copies of the last dictation of Andrew Taylor Still, MD, DO, the founder of osteopathy, are in a box at the Museum of Osteopathic MedicineSM in Kirksville, Missouri. Dictated as a Christmas greeting to the osteopathic medical profession shortly before his fatal stroke in 1917, the short note refers to his personal experience in treating patients with mental disorders and his belief that the “majority of the insane patients could be treated successfully by osteopathy.” He also mentions the success that “Arthur and the boys, Charlie and Harry” had observed in the 3.5 years that the Still-Hildreth Sanatorium had been open. The last sentence of Still’s final communication with the profession he founded reads, “I am very anxious for the entire profession to know of the work that is being done.”¹

What was the Still-Hildreth Sanatorium? Why was Still so interested in it that his last Christmas greeting discussed its progress? What kind of results did its patients have? Perhaps more important, what can a sanatorium that closed in the 1960s tell us about practicing osteopathic medicine today?

From the Oklahoma State University
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Financial disclosure: None reported.

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Submitted for publication August 25, 2014; final revision received January 6, 2015; accepted January 8, 2015.

This article was written to fulfill the research requirement for the author’s plus 1 residency in neuromusculoskeletal medicine and osteopathic manipulative medicine at the Oklahoma State University College of Osteopathic Medicine in Tulsa. The section titled “Comparison of Results With Published Accounts” was presented at the AAO’s 2014 Convocation as a poster titled “Comparison of Patient Records From the Still-Hildreth Sanatorium With Published Reports.” Dr Ching wrote that poster with Harriet H. Shaw, DO, and it won first prize in the resident clinical research category of the Research Poster Presentation conducted by the AAO Louisa Burns Osteopathic Research Committee and the National Undergraduate Fellows Association. The abstract was subsequently published in the June 2014 issue of [The AAO Journal](#) (see page 21 of that issue).

This article attempts to answer those questions. The first section is a history of SHS based on published materials and interviews with former staff members. The second section discusses the theory and history of using osteopathic manipulative treatment (OMT) to

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treat patients for psychiatric illnesses. The third section examines 1891 extant patient records from SHS, published case reports, and results, and it outlines limitations of the data. Patient records were compared with a published report of recovery rates during the same period to evaluate the often high rates of recovery in the published reports. The analysis has limitations, and although no firm conclusions can be made, patients with schizophrenia at SHS seem to have recovered at a higher rate compared with patients at a contemporary sanatorium. Many other patients appear to have recovered or improved. The article concludes with a discussion of further research possibilities.

The Still-Hildreth Sanatorium

Background

As an allopathic physician on the Kansas and Missouri frontier, Andrew Taylor Still, MD, DO, (1828-1917) became dissatisfied with the standard medicine of the time. Through studying the basic sciences and dissecting cadavers, Still developed a system of medicine based on his understanding of functional anatomy and physiology. His system relied on manual medicine to relieve restrictions of the function of muscles, soft tissue, blood and lymphatic vessels, nerves, and endocrine tissues. Those restrictions are now known as *somatic dysfunctions*.^{2,3}

In 1874, Still “flung to the breeze the banner of Osteopathy”⁴ and began openly using the system he developed. In 1892, after a period of itinerant medical practice during which he successfully treated many patients, he opened the world’s first osteopathic medical school in Kirksville, Missouri. Originally named the

CONTINUING MEDICAL EDUCATION QUIZ

The purpose of the Winter 2014 quiz—found on page 26—is to provide a convenient means of self-assessing your comprehension of the scientific content in the article “The Still-Hildreth Sanatorium: A History and Chart Review” by Leslie M. Ching, DO.

Be sure to answer each question in the quiz. The correct answers will be published in the next issue of the *AAOJ*.

To apply for two credits of AOA Category 2-B CME, fill out the form on page 26 and submit it to the American Academy of Osteopathy. The AAO will note that you submitted the form and forward your results to the American Osteopathic Association’s Division of Continuing Medical Education for documentation. You must score a 70% or higher on the quiz to receive CME credit.

American School of Osteopathy (ASO), it is now called the A.T. Still University-Kirksville College of Osteopathic Medicine.²

Osteopathic medicine was in its fifth decade when two of A.T. Still’s sons, Harry M. Still, DO, and Charles E. Still, DO, discussed opening an osteopathic sanatorium in Macon, Missouri, with Arthur G. Hildreth, DO. By then, Hildreth was well known as a staunch defender of the profession. His family was one of the first to recognize the importance of osteopathy, and A.T. Still often visited Hildreth’s home when Hildreth was a child.⁵ Hildreth observed the impact of Still’s system of medicine personally when Still treated members of the Hildreth family. For example, Hildreth’s wife had experienced eye problems that threatened her vision, but these were resolved with OMT.

Hildreth was a farmer on the outskirts of Kirksville when Still invited him to join ASO’s first class. Hildreth successfully completed his education there. In 1895 and 1897, he was involved in efforts to obtain recognition of osteopathic practice from the Missouri Legislature. Because osteopathy was not widely known, Hildreth offered to treat all members of the Legislature to introduce them to this system of medicine. In 1897, the Missouri House of Representatives passed a bill allowing osteopathy to be practiced, becoming the third state to do so. He was also instrumental in obtaining state licensure for DOs in several other states. In his lifetime, Hildreth served terms in the Missouri House of Representatives (1900-1904) and in the state Senate (1924-1932).

In 1899, Hildreth was named the dean of ASO. He was a leader of those who were loyal to osteopathy as taught by Still.⁵

In August 1913, a group of businessmen had obtained the buildings and grounds of the former Brees Military Academy in Macon, Missouri, approximately 35 miles from Kirksville. The businessmen approached “Dr Harry” and “Dr Charlie,” as they were known, with a proposal to transform the academy and its grounds into an osteopathic sanatorium.⁵ A.T. Still encouraged them both to establish the sanatorium and name Hildreth as its president.⁵

The sanatorium opened on March 1, 1914. It was established “for the osteopathic treatment of mental and nervous diseases.”⁵ It also functioned as a local hospital. At that time, the grounds consisted of 270 acres with a main building, an annex, a gymnasium, a pool, a large sun parlor, a library, a music room, 2 lakes (20 and 12 acres), a boathouse, tennis courts, stables, an archery area, vegetable gardens, an orchard, a greenhouse, and an on-site dairy.⁷ As SHS

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became successful and its patient census grew, a railroad stop was established outside the sanatorium grounds.⁸

In 1915, a basic stay cost \$20 a week, which covered room, board, treatment, baths, and general nursing but not personal laundry.⁷ Some patients worked at SHS to defray costs.⁷ An undated SHS pamphlet indicated that a medical exam cost \$25, including basic laboratory tests. The Wassermann test, an early test for syphilis, was an extra \$5.⁹

The annex was a restricted area for an unknown number of years, and it housed patients who were judged as dangerous by staff physicians.⁷ Some of these patients were transferred to the Fulton (Missouri) State Mental Hospital when SHS closed.¹⁰ Patients were also sometimes placed in the annex for disorderly behavior. Other areas of the sanatorium were used for confinement at times.⁷ In recent years, the Macon County Historical Society hosted several former patients for a visit, who said that the residents in the annex did not have the same privileges as residents of the main building, weren't treated as well as other residents, and were cared for by regular staff nurses rather than the private nurses who could be provided for residents in the main building. The patients in the annex were locked in rooms with bars on the doors and windows, and some patients were there until SHS closed.¹⁰ The barred rooms

may still be seen at the Macon County Historical Society, which is located in the annex. The Museum of Osteopathic Medicine has some of the restraints and keys to the cells.¹¹

Treatment Elements

Although the treatment protocols at SHS evolved throughout the years, its philosophy was to cure patients of psychiatric disorders, whereas many contemporary institutions for the mentally ill emphasized simply caring for those patients.⁵ The atmosphere at SHS promoted cleanliness, courtesy, respect, rest, good food, exercise, group activities, and socialization. OMT was an established part of treatment. Patients received OMT at least 3 times a week,^{8,12,13} and it was described as the "basis of the cure of the patients."¹⁴

An important aspect of treatment that is consistently highlighted in written sources and by former employees was the dignified, homelike, and social atmosphere at SHS (see the pictures in *Appendix 1*). The following is from a promotional brochure:

The rooms are homelike and cheerful, all being outside rooms, with plenty of light, running water and sunshine.... Only by a visit to the institution and by coming in contact with the life of the patients can one fully realize how nearly the home life feature can be carried out in such an institution.... It is a highly important essential of our method of treatment that the physical surroundings of the patients be cheerful, homelike and pleasant.... This condition, combined with our osteopathic treatment, supervision and care, makes possible the cures we effect. And cure, not care is our object.¹⁴

Staff members dressed in tidy uniforms, and physicians' white coats and shirts were expected to be clean and pressed.¹⁰ Former staff members recalled the constant efforts of gardeners and housekeeping staff: One remembered the doorman assiduously removing her fingerprints from the front doorknob seconds after she had entered the building.¹⁰

Diet was an important part of life at SHS.¹⁵ At one point, SHS's two greenhouses, vegetable gardens, orchard, dairy, and bakery supplied part of the food for patients and staff.¹⁰ Hildreth was concerned about salty and spicy foods, so salt and spices were not used in the kitchen.⁸ Patients were placed on a variety of diets depending on their examination and lab results, such as milk, fruit, vegetarian, low-protein and eggnog diets.^{7,16} In some cases, force-feeding occurred.⁷

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Former employees recalled the formal white linen and china service in the dining room.¹⁰ They described the medical staff sitting at one end of the room while the patients sat at tables in the rest of the room, and they noted that both groups were “treated like royalty.”¹⁰ The medical staff included students from the Kirksville College of Osteopathic Medicine, who were given room and board during their rotations at SHS.¹⁷ In the dining room, meals were served by wait staff. Some patients ate their meals in their rooms, and the patients in the annex ate in that building.¹⁰

Patients were encouraged to exercise and to be involved in such activities as playing musical instruments, participating in sports, sewing, going to movies, and helping in the kitchen and garden.^{7, 8, 15} Area groups performed musical and dance numbers for the patients.¹⁰ Some patients were even able to leave SHS during the day to work nearby as gardeners, to go shopping, or to go movies.^{7, 10}

Former staff members recalled being encouraged to socialize with the patients.^{7, 10} One former staff member, who was a teenager when she spent a summer working in SHS’s kitchen and dining room, was asked by physicians to walk around the grounds with a patient who was 10 or 12 years old. Years later, the patient returned in a limousine to propose marriage to her, which she gracefully declined.¹⁰

Since SHS’s beginning, hydrotherapy was a part of treatment, featuring tubs and hot packs.¹⁶ Former staff members recalled that the tub room, which was a large room full of baths used for treating patients, was also used by the staff members for their hygiene.¹⁰

After Hildreth’s death in 1941, the scope of treatment expanded. Herman Hoyle, DO, spent his entire career at SHS and eventually became its chief psychiatrist. He was sent to Europe to learn insulin shock treatment and Freudian methods, which he incorporated into treatment.⁸ Electroshock treatments were also used.^{7, 10} Other treatments included enemas, female circumcision, injections of unspecified substances, isolation or confinement, and rubs using alcohol or olive oil.⁷ Medical students were expected to assist with electroshock treatments, hydrotherapy, and OMT.¹⁷

With the development of psychotropic medications, a fundamental divide in treatment approaches began to develop at SHS. One example of this is that of Dr Charlie’s sons Richard and Charlie Jr, who were staff physicians at SHS: One used medications while the other continued to use only OMT.⁸ Unfortunately, no comparison of their results is available.

Patients

Because SHS was a hospital in addition to a sanatorium, patients were admitted to SHS for many reasons. (For the results from a chart review, see the *Figure*, *Table 1*, and *Appendices 2-4*). Most admitted patients had psychiatric or neuropsychiatric disorders (88% according to the chart review). The Macon County Historical Society has records of World War I soldiers admitted for shell shock and of women who gave birth at SHS and left their babies behind. Babies “from the San” appeared in local funeral home records of the time as often as once a month.¹⁰

Psychiatric Diagnosis and Associated Somatic Dysfunction

Early physicians at SHS distinguished between patients with functional disorders and those with organic ones. Osteopathic physicians felt they could significantly help patients with functional problems but were less likely to help those with organic disorders that affected the brain.^{8, 18} Early psychiatric examinations were done by Linn van Horn Gerdine, DO, MD, who was SHS’s psychiatrist in chief. A.T. Still’s grandson Fred M. Still, DO, mentions that “fully half of our patients” had been diagnosed by allopathic psychiatrists before arriving at SHS.¹⁵

Figure. Categories of Admission Diagnoses From Existing Records From 1914-1930

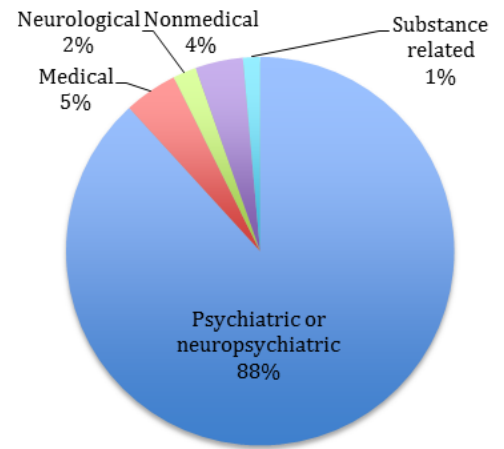


Table 1. Subcategories of admission diagnoses from existing records from 1914-1930

Subcategory	Number
Psychosis or schizophrenia	687
Bipolar disorder	357
Anxiety disorder	222
Mental disorder due to medical condition or pregnancy	158
Dementia	131
Depression	107
General medical disorder	84
Nonmedical problem	75
Substance-related disorder	27
General neurologic disorder	26
Developmental disorder	11
Confusion	5
Personality disorder	1

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The osteopathic physicians at SHS documented the somatic dysfunction findings of patients with psychiatric disorders. Upper thoracic somatic dysfunction findings in patients with psychiatric disorders were known as *Hildreth lesions*,¹⁹ after the co-founder of SHS. Floyd E. Dunn, DO, FACN, who served a residency at SHS in the 1940s and was twice president of what is now the American College of Osteopathic Neurologists and Psychiatrists (ACONP), published his somatic dysfunction findings in patients with psychiatric disorders in the 1952 yearbook of the Academy of Applied Osteopathy, now known as the American Academy of Osteopathy.²⁰ Of *neurasthenia patients*, or those with chronic fatigue and somatic complaints without evidence of organic pathology, he reported finding dysfunctions at C1, C2, the cervicothoracic junction, T11, and T12. Patients with hypochondria were noted to have mid-thoracic group lesions. Patients with hysteria were more likely to have atonia rather than hypertonia. Dunn also referred to the results of the osteopathic exams of 1000 patients with schizophrenia: The most common dysfunctions were in the C1-C3, T4-T6, and T11-T12 vertebrae. He correlated these levels with the superior cervical ganglion, splanchnic nerves, and innervation of the adrenal glands, respectively.

General Results of Treatments

The sanatorium’s reported results of cures were consistently higher than those of contemporary sanatoriums. Nevertheless, SHS had patients who committed suicide or died from natural causes.^{7,10} In addition, based on the medical records that have been preserved, the Museum of Osteopathic Medicine estimates the readmission rate as being around 7.3%, with some patients being readmitted more than once.⁷

In 1933, Fred M. Still compared the results of patients treated for schizophrenia at SHS with patients treated at an allopathic institution, the Colorado Psychopathic Hospital (CPH) in Denver¹⁵ (see *Table 2*). He addressed possible sources of error, including incorrect diagnoses and incorrect declarations of cure. Regarding the former, he stated that the average case of schizophrenia is “not hard to diagnose,” that “fully half” of patients had been diagnosed by allopathic psychiatrists prior to seeking care at SHS, and that the percentage of patients at SHS with schizophrenia was approximately the same as at other institutions. He defined *cure* as “being able to return home and resume their former places in society.”

Table 2. The comparison that Fred M. Still, DO, did of treatment results for patients with schizophrenia at the Still-Hildreth Osteopathic Sanatorium in Macon, Missouri, and the Colorado Psychopathic Hospital in Denver, Colorado.¹⁵

	Still-Hildreth Osteopathic Sanatorium	Colorado Psychopathic Hospital
Total number	1002	242
Percent of total recovery	35%	3%
Percent of recovery from hebephrenia	36%	8%
Percent of recovery from catatonia	44%	18%
Percent of recovery from paranoia	26%	0%

In his article, Fred Still compared 1002 patients with schizophrenia at SHS against 242 patients at CPH. Still-Hildreth’s data indicated that 35% of patients experienced a total recovery compared with 3% of patients at CPH. He delineated the data into the recovery rates for three types of dementia praecox. In addition, Still noted that rates of improvement were significantly better (68%) for patients who were admitted for treatment during the first 6 months of their diseases. Duration of disease prior to treatment correlated to improvement rate, with the shorter the duration, the higher the rate of improvement.

Decline

The rise of psychotropic medications contributed to the closing of SHS.⁸ The first psychotropic medication, chlorpromazine hydrochloride, entered the US market in the early 1950s.²¹ Another contributing factor may have been the merging of the osteopathic and allopathic medical professions in California in 1962. With the merger, a significant number of the osteopathic psychiatrists in California opted to accept MD degrees, resulting in the ACONP losing about one-third of its members.⁸ By the early 1960s, the only physician working at SHS was Harry Still, DO.⁸ Furthermore, SHS was a for-profit institution, and for-profit sanatoriums were falling out of favor because of the perception that they made money from suffering.⁸

After SHS merged with the Kirksville College of Osteopathic Medicine in 1964,¹³ it was suggested that adding outpatient services could contribute to SHS’s financial stability. In 1966, suggestions were made to expand psychiatric services to pediatric, adolescent, geriatric and acute intensive care patients and to conduct research.⁸ None of these suggestions were implemented, and SHS closed in 1968.

The residents of Macon remembered the closing of “the San” with sadness.¹⁰ In the words of one former SHS staff member, it was

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a “good place to work: They were good to you and it was a clean place and you were safe....The room wasn’t bad but the board was *wonderful*. Because if you didn’t like what they were eating, you’d just go and fetch whatever you wanted and that wasn’t a bad deal.”¹⁰ There weren’t many employers in that rural community that could employ hundreds of people (330 by one count), compensate them well, and provide a clean and restful environment.¹⁰

When SHS closed, some of the patients in the annex were sent to Missouri state hospitals, but others were released on their own cognizance.¹⁰

However, even before SHS closed, the use of OMT in psychiatry was declining, largely thought to be due to the Freudian paradigm connecting touch to sexuality.⁸ Despite the decline in the use of OMT, the psychiatric service at the Laughlin Pavilion in Kirksville consulted the pavilion’s osteopathic manipulative medicine service for some patients in the late 1980s.⁸ Theodore R. Jordan, DO, also received inpatient consults for OMT for patients with psychiatric disorders at Doctors Hospital in Columbus, Ohio, when that hospital had an inpatient psychiatric unit.²²

Today, SHS’s main building provides reduced-price housing for the elderly. The building retains some touches of its former luxury: The vestibule is still faced with copper, and the main staircase still has wrought-iron railings and marble steps. The original rooms were combined to create larger apartments. The main building was added to the National Register of Historic Places in 1979.⁶ In 2006, the annex was given to the Macon County Historical Society to become the Macon County Museum.⁶

Psychiatry and OMT

Theory

A.T. Still considered the possibility that psychiatric disorders were caused by “bony variations from their normal articulation which results in shortage or overplus in the supply of some one or more of the five senses.”²³ He attributed “many cases...of diseased mentality” to abnormalities of function of the vascular or nervous system, and he discussed psychiatric disorders and the rationale for OMT in his book *Osteopathy: Research and Practice*.²³ In 1933, Fred M. Still theorized that schizophrenia was primarily a disorder of the autonomic nervous system, and he stressed that theory more than “the chemical injury, the glandular, the focal infection and the psychogenic theories.”¹⁵

Early osteopathic medical researcher Louisa Burns, DO, identified “structural degeneration” and heredity as key parts of mental illness,

but she also stressed the importance of the “physiological factor,” including impedances to vascular and nervous system function.²⁴

Charlotte Weaver, DO, FACN, who was a charter fellow of the ACONP²⁵ and who developed and taught cranial osteopathy independently of William G. Sutherland, DO, reported improvements in patients with psychiatric disorders whom she treated. From 1920 to 1922, Weaver treated patients in a clinic for psychiatric disorders in Akron, Ohio, focusing on children.²⁶ In addition, she directed the “Osteopathic Polyclinic...studying and promoting the psychiatric rehabilitation of the indigent... [and] served as consultant on psychiatric disorders for the Delaware Springs Sanitarium.”²⁶ She wrote several papers on her findings and theories about the osteopathic treatment of patients with psychiatric illnesses, including the provocatively titled “What Are You Doing for the Psychopath?”²⁷ and “The Story of Jack, the Psychopath.”²⁸

In 1988, Dunn recalled that OMT was used to “normalize the structural integrity of the body, providing a foundation from which psychotherapy and other therapies could be more effectively employed.”⁸ He emphasized the interplay of genetics, environmental stressors, and psychology, as well as somatic dysfunction. He stated that psychosomatic problems were well

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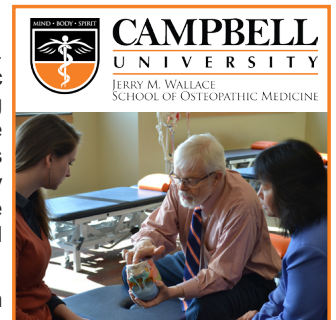
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suiting to the osteopathic approach because of the osteopathic emphasis on the wholeness of the human being and because OMT “is a method of affecting the psyche through somatic adjustments.”²⁹ Somatic dysfunction correlated with the “organ or avenue through which the personality will find somatic expression for unresolved conflicts.”¹⁸ According to Dunn, the answer to the question of causality, or whether somatic dysfunction came first or was secondary, was inconclusive.¹⁸

In 1948, Dunn listed 5 different factors in OMT that he thought may be helpful in treating patients for psychosomatic disorders:²⁹

- the reassurance of touch.
- the physician “doing something” to the patient’s body that the patient feels and that results in a change in the patient’s body image.
- decrease in emotional tension secondary to decrease in musculoskeletal tension.
- the effect of improved visceral functioning on mental processes.
- the effect of the physician’s attention.

As an example of this thought process, Dunn later described a patient with paranoia who was convinced that he was being

poisoned because he was experiencing stomach pains. Dunn examined the patient, found thoracic somatic dysfunctions, and treated the patient for them. Subsequently, the patient stopped having stomach pains, and he stopped thinking he was being poisoned. Dunn commented that although this episode did not alter the patient’s fundamental paranoia, the patient was able to progress in psychotherapy because of the “relationship between his structure and his nervous system.”⁸

Associations With Cranial Osteopathy

William G. Sutherland, DO, one of the pioneers in cranial osteopathy, felt that cranial osteopathy was likely to help many patients with mental disorders. In the third edition of *Osteopathy in the Cranial Field*, Harold I. Magoun Jr, DO, discussed the clinical improvement of patients with psychiatric disorders.¹⁹ One of those patients was a 23-year-old woman with schizophrenia who was found to have Hildreth’s lesion of the upper thoracic vertebrae. When she was treated for the lesion, her symptoms notably improved. Magoun discussed another patient with problems in learning and social functioning who had a vertical strain at the sphenobasilar symphysis. After treatment, she was better able to learn and function socially.¹⁹

In 1955, the Osteopathic Cranial Association (now known as The Osteopathic Cranial Academy) conducted an advanced course in cranial osteopathy at SHS.²⁹ In conjunction with this course, a survey of SHS patients was conducted. Patients were divided into cases of mild, moderate, and severe symptoms of their individual disorders. Several patients were checked before and after electroshock treatment. The results of the survey showed a lack of “characteristic pattern” but indicated the most frequent and severe restriction was at the sphenobasilar symphysis. The severity of the restriction correlated with the severity of each patient’s symptoms.³⁰

In 1959, John M. Woods, DO, and Rachel H. Woods, DO, reported on a study they conducted at SHS.³¹ Their study focused on the following 2 questions:

- How do the findings in patients with psychiatric illnesses differ from findings in patients without psychiatric illnesses?
- What effect might osteopathic cranial treatment have on patients with psychiatric illnesses?

The Drs Woods separated patients at SHS into three groups. Group 1 consisted of 49 patients with psychiatric illnesses who were examined and treated for durations ranging between 2 and 14 months. Group 2 consisted of 52 patients with psychiatric illnesses who were examined and treated for less than one month or not at

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all. Group 3 had 62 patients with nonpsychiatric conditions who were examined but not treated. Patients with organic psychiatric diseases, such as dementia, were excluded. The Drs Woods limited their treatment to the cranial and sacral regions because the patients were already receiving spinal manipulation from SHS staff physicians per the sanatorium's usual protocol.

At first examination, the patients with psychiatric diagnoses had decreased cranial rhythmic impulse (CRI) compared with the patients with nonpsychiatric conditions (Group 1: 6.65 impulses/min; Group 2: 6.95; Group 3: 12.47). The patients with the most severe psychiatric impairments had the most abnormal CRI. The Drs Woods also found that the patterns of major sutural restriction differed based on diagnosis. Patients with schizophrenia had the most restriction at the posterior area of the cranial base, patients with bipolar disorder had the most restriction in the area of the sphenobasilar symphysis, and patients with involuntal disorder had the most restriction in the anterior cranium.

The authors could not reach any conclusions based on the results of their treatment: They attributed that to the lack of objective measurements, the variety of natural histories of the diseases the patients had, the other therapeutics that the patients were receiving, and the authors' inexperience in the psychiatric field.³¹ In a separate article, the Drs Woods published charts of the CRI of selected patients at different treatment times.³²

Other Institutions

Other osteopathic institutions focusing on psychiatric disorders opened around the country following the establishment of SHS, but they were not open for long. These short-lived institutions included Dufur Osteopathic Hospital in Ambler, Pennsylvania; the Merrill Osteopathic Sanitarium in Venice, California; the Edgehill Sanitarium in Knoxville, Tennessee; and the Brooklawn Osteopathic Sanatorium and Clinic in Syracuse, New York.⁸ In the 1950s, SHS opened a second location outside of Tulsa, Oklahoma.⁸

In 1934, E.S. Merrill, DO, wrote an article for *The Journal of the American Osteopathic Association* comparing results at SHS to his facility in California.³³ These results are reproduced in *Appendix 5*.

Patient Data

Background

After SHS closed, its records were stored at the Kirksville College of Osteopathic Medicine. In 1997, the college began shredding the patient charts to create more storage space.⁷ Late in the process, officials at the Museum of Osteopathic Medicine became aware

Table 3. Classification of results of treatment at Still-Hildreth Sanatorium

- Recovered or cured
- Significant improvement
- Improvement
- Slight improvement
- No change
- Worsened
- Death
- Transient (not at SHS for the full treatment period)
- Unknown
- Nonmental or medical exam (or second opinion)
- Readmission
- Suicide
- Accidental death

that these records existed and were being destroyed. At that point, the museum requested and acquired ownership of the records.

Of the 2256 records that were preserved, at least 1891 include diagnoses.³⁴ These records also include charts of patients who were readmitted to SHS.

The rescued records are primarily for patients who were admitted from 1914 to 1930, which also is the period with the most published data from SHS. Those contemporary published accounts, however, do not include any retrospective chart analyses.

The Museum of Osteopathic Medicine compiled and redacted information from 1891 patient charts. The data were organized by patient chart number, age, marital status, state of residence, date of admission, intake diagnosis, date discharged, and result at end of stay. The results of being treated at SHS were classified according to the terms listed in *Table 3*.

Patient admission data were reviewed by this author and classified into diagnostic categories (see *Figure, Table 1, Appendices 2-4*). Many of the terms used in SHS's records are obsolete or possibly overlapping, but all attempts at consistency were made in categorizing the data. Modern classifications were used to simplify interpretation of the data for current health care professionals. General categories of diagnoses were designated as follows:

- Psychiatric and neuropsychiatric diagnoses included depression, anxiety, confusion, bipolar disorder, schizophrenia (known at the time as dementia praecox), mental conditions secondary to medical diseases (such as syphilis), personality

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Table 4. Comparison between the SHS pamphlet³⁶ and preserved patient records.

Diagnosis	Discharged psychiatric patients (pamphlet)	Recovery rate (pamphlet)	Preserved records of psychiatric patients	Recovery rate (records)	Difference in recovery rates
Schizophrenia	908	33%	664	28%	5%
Bipolar disorder	713	66%	357	51%	15%
Toxic psychosis	43	95%	16	88%	7%
Infection or exhaustion psychosis	64	95%	37	76%	19%
Presenile psychosis	16	55%	3	100%	45%
Psychoneuroses	232	77%	7	57%	20%
Incipient arteriosclerotic psychosis	9	100%	N/A	N/A	N/A
Traumatic psychosis	4	100%	3	100%	0
Total patients	1989	55%	1668*	34%	21%

The above numbers do not add up to 1891 because not all of the psychiatric and neuropsychiatric conditions are included in this table.

reasons, but there were also admissions for medical reasons.

The most common subcategories for admission were psychosis or schizophrenia, dementia, anxiety disorders, depression, bipolar disorder, and mental disorders secondary to medical conditions or pregnancy (see *Table 1*).

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disorders, and dementia for any reasons (such as cardiovascular senile degeneration).

- Medical diagnoses included pellagra, anemia, diabetes, mumps, and volvulus.
- Neurologic conditions were disorders such as developmental disorders, encephalitis, generalized chorea, and stroke.
- Substance abuse problems were mostly related to alcohol and morphine.
- The nonmedical category included patients admitted for rest and relaxation, second opinions, and medical exams, as well as patients whose diagnoses were illegible.

Because patient information was redacted, the institutional review board at the Oklahoma State University Center for Health Sciences in Tulsa did not subject this study to its oversight.

Description of Data From Records

Patients' Places of Origin

In its compilation of places of residence, the Museum of Osteopathic Medicine recorded 2256 patient admissions, with some readmissions.³⁵ Most patients were from nearby states: 33% were from Missouri; 13%, Iowa; 12%, Illinois; 8%, Kansas; 6%, Indiana; 4%, Oklahoma; and 4%, Nebraska. Twenty-three percent were from other states and countries, including Canada and Australia.

Reasons for Admission

Reasons for admission varied as depicted in the *Figure* and *Table 1*. Most patients were admitted for psychiatric or neuropsychiatric

Comparison of Results With a Published Account

A pamphlet that SHS published reported patient statistics from March 1914 to March 1931.^{36,37} Although different articles were published in various journals (see *Appendix 5*), the information in the pamphlet provides the best comparison for the redacted patient information because the pamphlet captures the same period. Other articles discuss shorter periods within the same span of years.

The pamphlet indicates that 4007 patients were admitted and 3877 discharged between March 1914 and March 1931. Of these patients, 1989 were admitted for psychiatric reasons, 457 for “organic diseases,” 118 for other causes, and 1313 for examination and advice. According to the pamphlet, 1101 (55%) of patients who were admitted for psychiatric reasons were discharged as cured. The pamphlet reported the following rates of recovery for discharged patients (see *Table 4*):⁹

- Of 908 discharged patients diagnosed with dementia praecox, or schizophrenia, 325 (33%) were considered recovered.
- Of 713 patients with manic-depressive psychoses, 473 (66%) recovered.
- Of 64 patients with infection and exhaustion psychosis, 61 (95%) recovered.
- Of 43 patients with toxic psychosis, 41 (95%) recovered.
- Of 16 patients with presenile psychoses, 9 (55%) recovered.
- Of 9 patients with incipient arteriosclerotic psychoses, 9 (100%) recovered.
- Of 232 patients with psychoneuroses, 179 (77%) recovered.
- Of 4 patients with traumatic psychoses, 4 (100%) recovered.

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By comparison, of the 1891 patients whose medical records are preserved, 1668 (88%) were admitted for psychiatric and neuropsychiatric disorders, 84 (5%) for medical conditions, 37 (2%) for neurologic disorders, 75 (4%) for nonmedical problems (including exams), and 27 (1%) for substance-related disorders.

Of the patients admitted for psychiatric and neuropsychiatric reasons, 574 (34%) were discharged as cured. Another 402 (24%) were reported to have some degree of improvement. These patients fell into the following categories (see Table 4) :

- 664 patients had dementia praecox, of whom 185 (28%) were discharged as cured.
- 357 had “manic-depressive psychosis,” of whom 182 (51%) were discharged as cured.
- 37 had psychoses secondary to infection and exhaustion, of whom 28 (76%) were discharged as cured.
- 16 had toxic psychosis, of whom 14 (88%) were discharged as cured.
- 3 had presenile psychosis, of whom 3 (100%) were discharged as cured. (Not included here are 127 patients who were admitted with variants of dementia.)
- 7 had psychoneurosis, of whom 4 (57%) were discharged as cured.
- 3 were admitted with “traumatic psychoses,” of whom 3 (100%) were discharged as cured.

Unlike the data in the pamphlet, the preserved patient charts did not include patients with the explicit diagnosis of incipient arteriosclerotic psychosis.

Table 4 compares the number of patients and recovery rates from the pamphlet for 7 psychiatric and neuropsychiatric diagnoses against data from the preserved medical records. For these 7 diagnoses, the difference in recovery rates between the pamphlet and the medical records range from 0% to 45%. However, all of these diagnostic categories had large inconsistencies in patient numbers. Therefore, it is unknown whether the difference in recovery rates is because of inflated results, differences in patient classifications, or a skewed representation of patient charts. In addition, the numbers of patients in each diagnostic category are not close enough to make meaningful comparisons.

Unfortunately, many of the diagnoses in the patient records are somewhat vague, and it was difficult to tell how these diagnoses were grouped together. It is very possible that the categories in

the pamphlet included a variety of related diagnoses. However, without this knowledge, one can only rely on the diagnoses in the preserved charts. For example, the large disparity between the pamphlet and the charts in the number of patients diagnosed with psychoneurosis may indicate that other diagnoses were grouped into this designation for the pamphlet. In addition, the calculated percentages from the preserved medical charts did include discharged patients who had unknown results, who were transient, who visited SHS for medical opinions, and who died while at SHS. It is uncertain as to whether the pamphlet did.

Traumatically Induced Disorders

The subclass of patients with disorders secondary to trauma is illustrative (see Table 5). Of the 8 patients admitted for disorders that started after traumatic events, 5 recovered, 1 improved, and 2 were transient.

Some of A.T. Still’s most dramatic results were from treatments he provided to patients with traumatically induced mental disorders.³ British osteopath John R. Lewis, BSc Ost Med (Honors), MSCCO, wrote a recent biography of Still in which Lewis mentions several patients whom Still treated for traumatically induced psychiatric disorders. One had a 3-year history of “insanity ” after falling off a buggy. Two hours after Still treated the patient, he was able to wash himself, change his clothes, and play the piano.

An article in the *New York Tribune* in 1914 discussed the role OMT played in the significant improvement of a 20-year-old patient who had a psychotic episode after running into a clothesline, sustaining a head injury, and losing consciousness.³⁸ Noting that the patient had “been violent for the greater part of...forty-eight hours” after the incident, the article reported that the patient slept for 24 hours after receiving OMT and was discharged, fully recovered, after 6 weeks.

Because of modern psychiatry’s move away from touching patients, the potential for using OMT to treat patients for traumatically

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Table 5. Traumatically induced disorders documented in preserved medical charts from SHS.

Diagnosis	N	Recovered or cured	Any improvement	Transient
Traumatic dementia	2	1	1	0
Traumatic dementia praecox	1	1	0	0
Traumatic epilepsy	1	0	0	1
Traumatic neurosis	1	0	0	1
Traumatic psychosis	3	3	0	0
Total	8	5	1	2

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induced psychiatric disorders has not been explored further. However, this trend may be reversing itself. In the fall of 2014, the Sutherland Cranial Teaching Foundation conducted a course on treating traumatic brain injuries, and The Osteopathic Cranial Academy's 2015 annual conference is titled "Traumatic Brain Injury: 'The Whole Person.'"

Comparison With Results of Medical Disorders at SHS

One means of gauging the accuracy of the data from SHS's preserved medical charts is to compare the results for a diagnosis that was relatively clear-cut at that time. For example, SHS's medical charts indicate that 26 patients were admitted for epilepsy. Given the limited treatments available in the 1920s and 1930s, patients with epilepsy would not be expected to improve significantly. Indeed, according to SHS's charts, none of the patients fully recovered. Instead, 1 improved significantly, 2 improved, 3 improved slightly, 7 had no change, 2 deteriorated, 2 died, and 9 had unknown results or short stays.

The preserved charts provide another example with 63 cases of syphilis-related taboparesis in various stages. The syphilis spirochete causes nerve damage, and even today, the nerve damage is irreversible. The preserved patient charts indicate that 3 patients recovered, 13 had a degree of improvement, 13 had no change, 15 deteriorated, 7 died, and 12 had unknown results or short stays.

In addition, the preserved charts include 4 cases of tuberculosis-related diseases, for which there were no antibiotic treatment until the 1940s.³⁹ Three of those patients died.

Although this information is limited, it can be concluded that SHS's results for epilepsy, syphilis, and tuberculosis-related diseases were not exaggerated. It may be extrapolated that SHS's results for other disease processes were not exaggerated either.

Limitations

A major limitation of these data is that the reported diagnoses must be assumed to be accurate. The sanatorium's medical records are often incomplete, and they do not thoroughly discuss the signs and symptoms that led to the diagnoses. So it is generally not possible to reconstruct diagnoses.

Psychiatric diagnoses today require ruling out a variety of pathologic, metabolic, endocrine, and substance-related disorders prior to making diagnoses. Although some laboratory testing was available at SHS, thorough assessments were not possible at the time. This throws into question the reliability of diagnoses and expectations for recovery. It is, for example, difficult to compare patients at SHS who were diagnosed with dementia against either

their contemporaries or current patients because the accuracy of the earlier diagnoses cannot be determined. If a patient at SHS had been diagnosed with dementia but actually had an endocrine abnormality, the patient would not have recovered from the endocrine abnormality with treatment tailored to what would have been a psychiatric diagnosis at the time.

As mentioned earlier in this article, the patient totals in a number of diagnostic categories are dissimilar to those published in the pamphlet. A plausible explanation for this is that related diagnoses were grouped together into categories for the pamphlet. However, these groupings cannot be replicated for the diagnoses in the preserved medical charts because the categorizing system used for the pamphlet is unknown.

Other limitations include the relatively few patient records that are left, the lack of published statistics from SHS after the 1930s, and the likelihood of disproportionate representation of some diagnoses in the sample of SHS patient charts from this period.

No good ways exist to assess the reliability of reported results. As noted in the section of this article titled "Comparison With Results of Medical Disorders at SHS," general reliability can be extrapolated based on comparisons to other disease processes. However, this is not optimal.

Possible Explanations for SHS Results

There may be several explanations for the results at SHS.

For example, inaccurate diagnoses or diagnoses that would be classified differently today may have artificially inflated SHS's results. To give an example of how changing classifications could affect results, the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV)*, differentiates between schizophrenia and schizophreniform disorder. The *DSM-IV* defines *schizophrenia* as producing active symptoms for 1 month and persisting for at least 6 months, with a decline in function.⁴⁰ *Schizophreniform disorder* is defined as producing active symptoms that last less than 6 months without intervention, with no decline in active function.⁴⁰ These two disorders had not been differentiated at the time SHS's medical records were created. Therefore, patients with schizophrenia and schizophreniform disorder may have been grouped together under the term *dementia praecox*. Patients with schizophreniform disorder who were treated at SHS may have improved within 6 months because of the natural course of the disorder rather than because of the treatment they received. As noted earlier, Fred M. Still reported that patients treated within the first 6 months of developing schizophrenia

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symptoms had significantly greater improvement than patients who had been symptomatic for longer than 6 months before being treated.¹⁵ Because of the lack of details in the medical records, it would be impossible to discern at this point whether any patient had schizophrenia, schizophreniform disorder, or even a metabolic or infectious disorder with symptoms similar to schizophrenia.

On the other hand, the natural resolution of schizophreniform disorders within 6 months would not account for the greater recovery rates at SHS compared with the Colorado Psychopathic Hospital.¹⁵ Most likely, both facilities had similar proportions of patients with schizophreniform disorder and schizophrenia. So how can the difference between the two facilities be explained?

At SHS, the goal of treatment was to treat the whole person, not the disease. In the words of an SHS brochure, the sanatorium had “a commitment to respecting each patient as an individual and a treatment philosophy that was holistic” through atmosphere, activities, diet, and OMT.¹² Current psychiatric care echoes this holistic approach by taking into account patients’ social context and emotional well-being.⁴¹ A former staff member described SHS as restful and well-groomed, with patients in the main building well taken care of and treated with respect. As mentioned earlier, socialization and participation in a variety of activities were highly encouraged at SHS. It is plausible that the supportive environment at SHS improved patients’ frame of mind and improved resiliency factors in the patient. A demonstration of this might be that data from SHS charts indicate that 10 of 17 patients admitted with addiction-related problems recovered, 1 improved significantly, 1 had no change, 2 were only there for short stays, and 2 had unknown results. None of the 17 were readmitted. This rate of

improvement would be commendable even with the current medical management of addiction.

Osteopathic manipulative treatment may also have played a role in helping patients with both psychiatric and nonpsychiatric conditions through its effects on musculoskeletal tension and the nervous, lymphatic, vascular, and endocrine systems. As mentioned earlier, Dunn discussed ways in which OMT could help patients with psychosomatic disorders.²⁸ Eight of SHS’s preserved medical charts are for patients who recovered from traumatically induced psychiatric disorders. For patients who were admitted to SHS with medical problems such as chronic diarrhea and bronchitis, OMT clearly could have had a role in facilitating their recovery.²

Conclusions and Ideas for Further Research

The Still-Hildreth Sanatorium was notable for its care of the whole patient and for being the first institution to incorporate OMT into the care of patients with psychiatric illnesses. In a comparison of data published by SHS to extant medical records, no conclusions could be made about accuracy because of large differences in patient totals and rates of recovery. The various possibilities for these discrepancies include uncertainty as to how the pamphlet authors grouped diagnoses, exclusion of various result groups by pamphlet authors (such as patients with incomplete charts), a skewed sample of medical records, and artificial inflation by the pamphlet authors. Limitations also include diagnostic uncertainty and the lack of published statistics after the 1930s.

Although case reports and small studies done at SHS and elsewhere were published, these are merely suggestive of the role of osteopathic philosophy and OMT in the treatment of patients with psychiatric illness. Dunn discussed the impact that OMT may have on patients with psychiatric disorders, such as the effects of touch and attention, changes to patients’ body image, decreased emotional tension, and improved visceral function that indirectly changes mental functioning. The supportive and social environment of SHS for the patients in the main building may have also contributed to these effects.

Despite questions regarding the reliability of the data, many patients do appear to have recovered or improved at SHS. That they did so in a treatment environment that focused on supporting and encouraging patients’ resilience indicates that there may be room in the treatment of those with psychiatric illnesses for treating the body and spirit along with treating the mind via psychotherapy and neurochemistry. As A.T. Still said, “First there is the material body; second the spiritual being; third a being of mind which is far superior to all vital motions and material forms, whose duty is to

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wisely manage this great engine of life.”⁴² Osteopathic philosophy aspires to address all of these aspects of each patient. At SHS, that was accomplished by treating the body with OMT, rest, nutrition, and exercise and treating the spirit and mind with socialization and a relaxing atmosphere.

It is encouraging to consider the treatment of patients with psychiatric disorders through other avenues than our current methods of psychotropic medications, electroconvulsive therapy, deep brain stimulation, psychotherapy, and cognitive-based therapies. Although it is unlikely that a sanatorium along the lines of SHS could be established now, the lessons it imparted are still worth considering. Consideration of patients’ somatic dysfunctions, which may affect their musculoskeletal, nervous, vascular, and lymphatic systems, has been an untapped resource in diagnosis and treatment. Besides OMT, other ways to affect the body are through a healthy, well-balanced diet and exercise. Motivating patients to engage in stress-relieving activities and encouraging patients to make time for themselves are some ways to support the mind and spirit. In other words, the lessons from SHS suggest to the current-day audience what might be accomplished through detailed consideration of the unity of the person.

Other research avenues for using the database of SHS records include comparing SHS’s results and treatments to those of other contemporary sanatoriums, further correlating SHS’s stated diagnoses with modern definitions, analyzing the internal consistency of SHS’s results, and investigating the full range of modalities used at SHS. If other patient records or published statistics from SHS can be found, the historical picture of SHS could become fleshed out further. Oral histories of the physicians and staff who worked or trained at SHS, as well as living patients, may be of interest. To assist future researchers, references that were not alluded to in this article are provided in *Appendix 6*.

The SHS database also includes records that mystic Edgar Cayce “read” in a trance-like state. The correspondence between physicians and Cayce may be of interest to those who study Cayce’s work.

Modern clinical research on OMT’s effects on patients with psychiatric disorders could provide options that are distinct from pharmacology and talk therapy. For patients with psychiatric disorders, OMT is likely to have the most effect on the autonomic nervous system, the lymphatic system, and the vascular system. As a consequence, OMT could augment the known effects of neurochemical-based treatments. Currently, there is an emphasis on the potential for using OMT to treat patients for such disorders as traumatic brain injuries. Further research into traumatic brain

injuries, postconcussion disorders, other traumatically induced psychiatric disorders, and other psychiatric disorders could advance the evidence base for OMT.

Acknowledgements

The author thanks Jason Haxton, Debra Loguda-Summers, and the rest of the staff at the Museum of Osteopathic Medicine in Kirksville, Missouri, for their assistance with researching and referencing this article, as well as for reviewing it for errors. Sally Watts, Merlyn Amidei and other staff at the Macon County Historical Society were extremely generous with their time and energy in assisting with interviews on this subject. Watts and Amidei were also fantastic tour guides around Macon, Missouri.

The author thanks Michael E. Fitzgerald and Michael M. Patterson, PhD, for providing their articles on this subject. The author offers her sincere gratitude to Robert M. Baker, DO; Teodor J. Huzij, DO, FACONP; Theodore R. Jordan, DO; Harriet A. Huggard Shaw, DO; and Mark H. Thai, DO, for reviewing this article. The author also is extremely grateful to the library staff at the Oklahoma State University Center for Health Sciences in Tulsa for locating reference articles and to the library staff at the UNT-Health Science Center in Fort Worth, Texas, for providing access to The Osteopathic Cranial Academy’s newsletters.

Any errors that were not corrected in this article are the sole responsibility of the author.

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Complete the quiz to the right by circling the correct answers. Send your completed answer sheet to the American Academy of Osteopathy. The AAO will forward your results to the American Osteopathic Association. You must answer 70% of the quiz questions correctly to receive CME credits.

Answers to *The AAO Journal's* November 2014 quiz:

1. A
2. D
3. B
4. C

Answers to the *AAOJ's* Winter 2014 CME quiz will appear in the March 2015 issue.

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1. What were some of the main elements of treatment at the Still-Hildreth Sanatorium (SHS)?
 - a. Osteopathic manipulative treatment, exercises, and socialization
 - b. A clean environment and fresh food
 - c. Hydrotherapy and electroshock treatments
 - d. All of the above
2. According to Floyd E. Dunn, DO, FACN, what are some ways that osteopathic manipulative medicine might be beneficial for a psychiatric patient?
 - a. Reducing the patient's allostatic load
 - b. Reducing pathological autonomic nervous system input
 - c. Reassurance of touch, change in the patient's body image, decrease in emotional tension, decrease in mental tension, and paying attention to the patient
 - d. Reassurance of touch, change in the patient's body image, increase in emotional tension, increase in mental tension, and paying attention to the patient
3. What was the most common categorical reason for admission to SHS?
 - a. Psychiatric or neuropsychiatric
 - b. Tuberculosis
 - c. Neurological
 - d. Medical
4. According to the article, recovery rates in SHS's extant patient records are generally consistent with SHS's published reports although there are limitations in the data.
 - a. True
 - b. False

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The Osteopathic Cranial Academy
A Sutural Approach to Osteopathy in the Cranial Field
Course directors: Edward G. Stiles, DO, FAAO, and Charles A.
Beck, Jr, DO, FAAO
Sheraton Hotel Airport, Portland, Oregon
(317) 581-0411 • Fax: (317) 580-9299
Learn more and register at www.cranialacademy.org.

April 8-12, 2015

The American Osteopathic Association
of Prolotherapy Regenerative Medicine
**Spring 2015 Training Seminar:
Prolotherapy and Cadaver Conference**
Program chair: Arden Andersen, DO
Naples Beach Hotel & Gold Club, Naples, Florida
24 credits of AOA Category 1-A CME anticipated
Learn more and register
at www.prolotherapycollege.com.

April 17-19, 2015

The Osteopathic Cranial Academy
**The Neurology of Posture – Maxillofacial Influences: Teeth,
Eyes, Ears, Vertebrae**
Course director: Maurice Bensoussan,
MD, DO (France), FCA
Assistant director: R. Paul Lee, DO, FAAO, FCA
Embassy Suites Hotel, Alexandria, Virginia
(317) 581-0411 • Fax: (317) 580-9299
Learn more and register at www.cranialacademy.org.

May 6-10, 2015

Arizona Osteopathic Medical Association
93rd Annual Convention
Arizona Grand Resort in Phoenix
35.5 credits of AOA Category 1-A CME anticipated
Learn more and register at www.az-osteo.org.

June 13-17, 2015

The Osteopathic Cranial Academy
Introductory Course: Osteopathy in the Cranial Field
Course director: Eric J. Dolgin, DO, FCA
Assistant director: Michael J. Porvaznik, DO
Naples Grande Resort, Naples, Florida
40 credits of AOA Category 1-A CME anticipated
(317) 581-0411 • Fax: (317) 580-9299
info@cranialacademy.org • www.cranialacademy.org

June 18-21, 2015

The Osteopathic Cranial Academy
**Annual Conference:
Traumatic Brain Injury – The Whole Person**
Course directors: Simeon Hain, DO
Associate director: Ali Carine, DO
Naples Grande Resort, Naples, Florida
(317) 581-0411 • Fax: (317) 580-9299
info@cranialacademy.org • www.cranialacademy.org

August 4-9, 2015

Texas Osteopathic Medical Association
and the Texas chapter of the American College
of Osteopathic Family Physicians
9th Annual TOMA/TxACOFFP Joint Convention
Omni Bayfront Hotel, Corpus Christi, Texas
Learn more at www.txosteo.org