OMT and the Osteopathic Philosophy
ON THE COVER

One of the most distinctive characteristics of the osteopathic profession is manipulative therapy. With this issue, we begin a series on this unique diagnostic and therapeutic technique.

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CIRCULATION: This winter 2,650 copies of "Communique" are distributed each issue to MSU-COM faculty and staff; on-campus students; students on clinical rotations; off-campus volunteer faculty; alumni; associate members of the MSU-COM Alumni Association; directors of medical education, administrators and others in affiliated hospitals; MSU deans and administrators outside MSU-COM; friends of the college; premedical advisers statewide, and osteopathic publications.

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Michigan State University is an equal-opportunity/affirmative action institution.
However osteopathic manipulative therapy is viewed — in its uses, applications, definition, and the controversy which has surrounded it — it has become a highly visible example of what is distinctive about the osteopathic approach to health care. In this and the next several issues of "Communiqué," we will explore OMT, its origins, the undergirding philosophy, the specific techniques, its role in the curriculum at MSU, and research efforts underway at the College to explore and objectify its efficacy and use.

It is not uncommon to hear even the most loyal students of osteopathic medicine define their profession and their training as "we do everything M.D.s do plus manipulative therapy." To the casual observer, this certainly would express how "doing D.O." looks. It is not all that osteopathic medicine is.

The importance of osteopathic manipulative therapy — and of osteopathic medicine itself — cannot be understood without a comprehension of its origins, its philosophy, and its basic approach to health and humanity.

What's a useful definition of osteopathic medicine?

The Glossary of Osteopathic Terminology compiled by MSU-COM's Robert C. Ward, D.O., and Sarah Sprafka, Ph.D. was prepared as part of the Project on Osteopathic Principles Education under the sponsorship of the American Osteopathic Association's Educational Council of Osteopathic Principles. Published last April, it provides an "official" definition of the profession, based as a definition found in Dorland's Illustrated Medical Dictionary.

A system of health care founded by Andrew Taylor Still (1828-1917 and based on the theory that the body is capable of making its own remedies against disease and other toxic conditions when it is in normal structural relationship and has favorable environmental conditions and adequate nutrition. It utilizes generally accepted physical, pharmacological, and surgical methods of diagnosis and therapy, while placing strong emphasis on the importance of body mechanics and manipulative methods to detect and correct faulty structure and function.

(more)
Other than the founder of osteopathy, who was Andrew Taylor Still?

A midwestern country physician, Still from his earliest years was a man who defiantly rode the winds of the future. He was an ardent abolitionist, a strong supporter of women's suffrage, a representative in the Kansas legislature, and a generous supporter of higher education.

What was unique about his approach to the practice of medicine?

Still was disillusioned with the medical practice of his time, a period which preceded even elementary techniques such as antiseptic surgery. The physicians' armamentarium consisted primarily of drugs, many of which were so toxic they were more harmful to the patient than the disease they were prescribed to treat. Medical research of the day was directed to finding a single cause for each disease.

Still rather believed that the human body must at all times be considered as a unit, and that the proper study of medicine must be founded on the foundations of health rather than the causes of disease. Disease, he noted, was the body's normal response to abnormal conditions in environment or structure. Health was the body's state of normalcy, which it would strive to maintain. Therapeutical Medicine was to assist the body's capabilities for self-healing and maintenance of health.

Why does osteopathic medicine so emphasize body mechanics?

Still's recognition of the importance of considering the whole patient instead of simply his or her disease, had at its foundation the inseparable relationship of structure and function in the human body. Abnormalities in structure, from the gross to the microscopic level, can produce abnormalities in function, and vice versa.

More than 60% of the human body by mass is contained in the musculoskeletal system. Intimately tied to these systems are the nervous and circulatory systems, which communicate throughout the body. Humans are, among so many other things, mechanical beings, and thus prone to mechanical disorders. These disorders in turn can affect the state of health of the entire being.

As George Northup in Osteopathic Medicine: An American Reformation has noted:

It is to Still's credit that he was one of the first to make practical application of the structure-function concept...Whether one alters the gross structure of the body by manipulative therapy or whether one 'manipulates' the molecular structure of a cell by radiation, chemicals, and means yet to be determined, the resulting altered function cannot be denied...

Thus, in the concept of total body unity, the inherent predilection of the body for health, and its natural healing forces - combined with the broad implications manifest in the structure-function concept - osteopathic medicine has for the first time initiated the construction of a basic, unifying philosophy for the study of man, his health, his diseases.

Next: An introduction to osteopathic manipulative therapy and a summary of techniques.
BIOFEEDBACK MAY HELP IN STRESS REDUCTION

Biofeedback may be a natural, healthy tool for individuals to use in coping with stress, according to two Menninger Foundation experts who spoke recently to physicians and scientists at Michigan State University.

Many persons who handle stress through negative outlets — such as drugs, alcohol, smoking, or overeating — could be trained to control their body's responses through biofeedback, said Charles Leeb and Richard Gloor at a seminar at the MSU College of Osteopathic Medicine.

Personnel at Menningers train persons with high blood pressure, migraine headaches, chronic pain and other stress-related conditions in biofeedback techniques which "give them direct and immediate information on how their bodies are performing," they said.

Biofeedback techniques used include control of hand temperature, brain waves, skin conductivity, and electrical activity of muscles.

"We want to be careful to present a balanced picture," said Leeb. "The popular press has represented biofeedback as more than it can ever be. But the scientific publications have tended to limit it to far less than it can become."

Both Leeb and Gloor view biofeedback as a "psychophysiological therapy," one that can function at the interaction point of mind and body.

"Our conscious minds are aware of only a very small percent of all the stimuli that are available through our senses," they noted. "But physiologically, every sensory perception causes 'mental,' 'emotional,' and 'physical' responses within the body."

They noted that these perceptions are recorded internally through the limbic system — the brain's emotional "receiving center" — and then mediated through the hypothalamus and pituitary gland to be translated into "physiological language," or the body's physical response.

"The body's normal response to something perceived as stressful is the classic 'flight or flight' pattern, and includes increases in cardiac output, respiration, central nervous system arousal, and numerous changes in body chemistry," Leeb and Gloor noted. "When the stressful incident is resolved the body's functions usually return to a normal state."

"But under chronic stress, when the stressful situations remain unresolved, physical problems such as hypertension can develop," they said.

Leeb and Gloor see the use of biofeedback as a training process which gives persons more control over the physical responses to stress. This training involves meeting particular criteria, such as attaining and maintaining a hand temperature of 95.5 degrees Farenheit for ten minutes.

"At normal environmental temperatures, hand temperatures can be a mirror of the emotions," they said. "Training persons to voluntarily warm their hands is associated with whole-body relaxation."

They have found such training effective in treating persons with disease such as essential hypertension and migraine headaches.

"The ultimate goal is to learn the biofeedback skill such that the persons become internally aware that they have voluntary control and need no external reinforcement," Gloor said.

Leeb and Gloor noted that they are now developing a research project to investigate what they have seen clinically with biofeedback training at the Menninger Institute.
SLEEP TERROR USUALLY BENIGN IN SMALL CHILDREN

Three-year old Kay was a half-hour into her afternoon nap when suddenly the agitation started. She threw herself from the bed in obvious distress, making gutteral noises. Her heart beat wildly, she was sweating, and she would not respond in any way to the assurances of her parents. She appeared to be in abject terror, but none of her movements or her cries seemed purposeful.

After fifteen minutes, her skin felt clammy and she fell into a deep sleep. Two hours later, she awakened fully, stretched and said "Mommie, I had such a nice nap!"

According to Michigan State University psychiatrist Gaston Blom, what the child suffered was neither nightmares, nor a form of epilepsy nor the result of a psychological problem. It was a condition known as sleep terror, or "pavor nocturnus" when it occurs at night.

"Sleep terror is usually not an indication for any concern when it occurs in small children. They usually outgrow it," Blom said. "It is often a more distressing experience for the parents who witness it than for the child, who usually has no memory of what has happened."

Though the causes of the condition have yet to be fully explained, Blom said, in preschool children sleep terror usually seems to be related to a maturational process in the nervous system.

"The behavior is the result of an extremely sudden shift from the deepest stages of sleep to near-waking. It usually occurs early in the period of sleep," he said. "The body responds to this rapid arousal by stimulation of the sympathetic nervous system, creating the classic 'fight or flight' response. The agitation is the body's way of responding to this stimulation."

Blom emphasized, however, that the child is not experiencing a terrifying nightmare, because sleep terror does not occur during the REM (rapid eye movement) stage of sleep usually associated with dreaming.

"What the child experiences is sheer emotion, a 'feeling' labelled 'terror', with no associated mentation," he said.

In adults and older children, sleep terror may not be quite so benign, Blom said, and may be a symptom of psychological problems, undue stress, or sleep deprivation.

"In such cases, evaluation by a physician, psychologist or psychiatrist is helpful to understand the causes underlying the symptom," Blom said. "Medication can be sometimes prescribed which keeps the sufferer from experiencing the deepest stages of sleep and the subsequent sudden sleep arousal."

* * * *

PSYCHIATRIST NAMED DIRECTOR OF OILIN HEALTH CENTER

William R. Duff, M.D., a psychiatrist in private practice in Spokane and faculty member at the University of Washington School of Medicine, has been named director of the Olin Health Center at MSU. His appointment, announced by William Schonbein, MSU vice president for health services and facilities, takes effect May 1.

Dr. Duff, who holds a Ph.D. in biomedical engineering from Purdue University, is a 1975 graduate of the University of Texas School of Medicine at Houston. He took residency training in psychiatry at Baylor College of Medicine, where he earlier held an appointment as assistant professor of physiology and of community medicine.

He has been in private practice of adult and family psychiatry since 1978, and on the administrative faculty of the University of Washington's Spokane internal medicine residency program since 1979.

Dr. Duff is a consultant to the Veterans Administration Hospital in Spokane and Eastern State Hospital at Medical Lake.

A member of Alpha Omega Alpha medical honor society, he has held fellowships from the National Science Foundation and the National Institutes of Health.
COMMUNIQUÉ

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MSU RESEARCHERS FIND
WORKPLACE OFFERS SUPPORT
FOR SMOKERS WHO QUIT

Smoking statistics: 58 million smokers;
economic losses to industry and employees of
more than $27 billion annually in loss
production, direct health costs, and fire losses.

Incentives to quit smoking — including on-the-job support from co-workers, money, and
extended social support for six months to keep ex-smokers off the habit — achieved an 80
percent success rate in a project conducted by two Michigan State University psychiatry
professors.

Billed as a "smoking cessation program that works," the office-based project involved 15
'smoking' employees of the Michigan Hospital Association, headquartered in Lansing.

When the six-month program ended in December, 12 of the 15 were still successfully
abstaining from cigarettes, "a remarkable success rate" according to Dr. Bertram E.
Stoffelmayr and Dr. Thomas J. Stachnik of MSU's Department of Psychiatry. The
department is a unit of MSU's College of Osteopathic Medicine and College of Human
Medicine.

Even more impressive, they say, is the fact that their many-faceted program attracted 47
percent of the association's total smoking population (32) who elected to make a long-term
effort to kick the habit.

"That figure is inordinately high when compared to the percentage of target smokers that
other smoking cessation programs have been able to attract," the researchers point out.

"Taking both measures into account — 12 of the original 32 smokers are now ex-smokers or a
reduction in the target population of a whopping 37 percent!"

Even better success was recorded with the researchers' program at Capitol Savings and Loan,
also in Lansing. Of 17 employee smokers, 12 joined the stop smoking program, and 11 went
the full distance. Follow-up studies are planned on the continued abstinence of the new non-
smokers.

Stachnik and Stoffelmayr contend that if smoking is to be approached as a public health
problem (58 million smokers), there must be attractive, accessible programs to lure those
millions of smokers who know they should quit but need immediate incentive and solid support
systems "to make it happen."

The researchers also point out the severe economic losses due to industry and employees due
to cigarette smoking. According to the prestigious New England Journal of Medicine (March 9,
1978), total economic costs attributable to smoking in 1976 totaled more than $27 billion.
This included more than $19 billion in lost production, more than $8 billion in direct health
care costs, and $175 million in fire losses.

Why does the MSU program work so well?

The researchers say that while it is difficult to be precise because so many factors were at
work, five such factors seem apparent.

(more)
Smoking...

- The program was offered in the participants' work setting so that no special effort was required to attend a clinic somewhere else. (Research shows that doing away with such a special effort increases participation.)

- The financial incentive clearly played a role. At the Michigan Hospital Association, each smoker placed $25 in escrow with the employer who in turn set aside another $125 for each participant. Return of funds was based on the non-smoking "performance."

- The public commitment to stop smoking by smokers made to friends, family and co-workers is a powerful motivator.

- Six months is relatively long for such a program and appears to be a key factor in reinforcing the non-smoking behavior or "maintaining abstinence." Most programs to stop smoking ignore the maintenance period.

- Participants are able to share the discomfort of quitting smoking with work colleagues and partake of that mutual support to stay off the cigarettes for six months.

To stop smoking, the researchers agree, means a smoker has to counter a formidable habit, often related to a wide variety of extremely pleasurable activities — good food, good conversation, drinking alcohol and coffee, being at a party, watching TV, and making love.

"After being associated many times with these activities, some of their attraction rubs off onto smoking," the researchers say.

"Smoking becomes woven into a person's lifestyle to the extent that life without cigarettes seems empty, and just thinking about quitting makes the would-be quitter downright depressed."

They say cigaret smoking is an extremely ingrained habit just in terms of sheer frequency that a smoker has engaged in the act.

"Consider that a smoker with a pack-a-day habit over 10 years has smoked 71,000 cigarettes...at 10 puffs per cigaret, he or she has 'practiced' the habit 710,000 times! In terms of physiological dependence, that smoker has introduced nicotine into his/her body 710,000 times."

The researchers are now just beginning to extend the program into MSU dorms, and will be evaluating which of the program's elements might be most effective.

While the Stachnik/Stoffelmayr program is aimed specifically at smoking and how to stop it, the researchers point out they believe that the principles of on-the-job group support, financial reward, and a public commitment to change some behavior, could easily apply to other health risk factors, such as hypertension, lack of exercise, or losing weight.

As proof, another group of Michigan Hospital Association employees on their own last fall began to apply the "quit smoking" principles to a weight loss program.

Results are due shortly, when some light may be shed on how many non-smokers now are also "non-eaters."

— Nancy Houston
STATEWIDE SEMINAR ON NUCLEAR WAR
COSPONSORED BY MSU-COM APRIL 24

A statewide seminar on "Medical Consequences of Nuclear Weapons and Nuclear War" will be held for physicians and other interested persons in Detroit on Saturday, April 24.

The program, organized by the Detroit and Washtenaw County chapters of Physicians for Social Responsibility, is cosponsored by MSU-COM, the MSU College of Human Medicine, the Wayne State University School of Medicine, and Henry Ford Hospital.

The Program will include:

"Medical Effects of Nuclear Weapons Production" by Katherine Kahn, M.D., associate professor of medicine, University of Massachusetts Medical Center

"Nuclear Weapons and How They Work" by Alvin M. Saperstein, Ph.D., professor of physics, Wayne State University

"The Acute Medical Problems of a Nuclear Attack on Detroit" by Eugene V.D.K. Perrin, M.D., professor of pathology, WSU School of Medicine, and cochairperson, Detroit PSR

"Personal Experiences with Treating Victims of a Nuclear Explosion" by Charles S. Stevenson, M.D., emeritus professor and chairman of the Department of Obstetrics and Gynecology, WSU School of Medicine, and first Naval medical officer ashore at Nagasaki in 1945

"The Long-Term Somatic and Germinal Genetic Effects" by Donald L. Ricknagel, M.D., Ph.D., professor of human genetics and internal medicine, University of Michigan medical School and cochairperson of Washtenaw County PSR

"The Psychological Causes of the Nuclear Arms Race" by Jerome D. Frank, M.D., Ph.D., professor emeritus of psychiatry, Johns Hopkins University School of Medicine


"The Arms Race and the Citizen" by Thomas A. Halsted, former director of the Office of Public Affairs, U.S. Arms Control and Disarmament agency, and national director of PSR.

The seminar will be held at the Music Hall, 350 Madison, Detroit, and registration begins at 8 a.m. Moderators for the program include William Anderson, D.O., president-elect of the Michigan Association of Osteopathic Physicians and Surgeons, and James Frybogle, M.D., president of the Michigan State Medical Society.

The program is approved for five hours of Category I credit for M.S.s

Costs are $50 for physicians desiring CME credit, $10 for the public and housestaff, and $5 for senior citizens and students with identification. Preregistration is encouraged.

For registration, contact the WSU continuing medical education office, 9B-32 DRHUHC, 4201 St. Antoine, Detroit, 48201; 313/577-1180. Queries about the conference or PSR should be directed to the Detroit PSR office, 313/494-5502.
POST-TRAUMATIC HEADACHE — STRESS AND BIOMECHANICAL FACTORS: MARCH 20, 1982

A seminar on post-traumatic headache, focusing on both stress and biomechanical factors, will be cosponsored by MSU-COM and the Pain Research and Control Institute of the Southfield Rehabilitation Center.

To be held March 20 at the MSU Kellogg Center for Continuing Education, the program will include a review of headache disorders, biomechanical considerations in post-traumatic headache, stress and muscle contraction headaches, behavioral and psychotherapeutic management, nerve blocks and trigger point injections, the use of transcutaneous electrical nerve stimulation, cervical and cranial osteopathic manipulative techniques, and the use of biofeedback.

Speakers will include: Claude Oster, D.O., chief executive officer, Lawrence E. Jacobson, D.O., associate medical director, Arnold Kelz, D.O., psychiatrist, all of the Pain Research and Control Institute; Robert C. Ward, D.O., professor of biomechanics, MSU-COM; Barbara Briner, D.O., director of osteopathic manipulative services, Lansing General Hospital; and Vidyachandra R. Vakhariya, M.D., anesthesiologist, Henry Ford Hospital.

The program is supported in part by contributions from Ciba-Geigy; Merck, Sharp and Dohme; and Todd Medical, Inc.

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SECOND ANNUAL "DAY IN ADOLESCENT MEDICINE"
APRIL 21 AT ST. LAWRENCE HOSPITAL

Medical problems of the adolescent will be the subject of a day-long symposium held April 21 at St. Lawrence Hospital, Lansing.

Rick Jones, M.D., a professor at Georgetown University, will be the program’s guest speaker, giving presentations on drug abuse and on alcoholism in the adolescent.

Other topics, given in concurrent workshops, include accidents and accident prevention, psychosomatic illness, suicide and depression, chronic disease in adolescents, learning disabilities, the handicapped adolescent, social and medical aspects of delinquency, and malignancy in adolescents.

Speakers from MSU-COM include pediatrics faculty Bernard Kay, D.O., chairman; Gerard Breitzer, D.O. assistant professor; Lloyd Schneiderman, D.O., professor; and Ruth Worthington, D.O., assistant professor and director of adolescent clinics. Gerald Osborn, D.O., assistant professor of psychiatry and acting associate dean for academic affairs, and Margaret Kingry, R.N. adolescent nurse practitioner and assistant professor of nursing, will also speak.

(more)
College of Human Medicine faculty include Roshni Kilkanw, M.D., Mike Netzloff, M.D., and Marvin Reimer, M.D., all of the Department of Pediatrics and Human Development. Other speakers include David Klein, adjunct professor in CHM and professor of social science, and Nels Bullock of the Ingham County Intermediate School District. Welcome and comments will be given by Sister Mary Janice Belen, R.S.M., president and chief executive officer of St. Lawrence Hospital, and David J. Kallen, Ph.D., professor of pediatrics and human Development and co-director of the Adolescent Program.

The seminar, sponsored by MSU-COM, MSU-CHM, and St. Lawrence Hospital, has been approved for 6.5 hours of Category I CME credit for both D.O.s and M.D.s.

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TUTORIAL ON MYOFASCIAL RELEASE TECHNIQUE
APRIL 23-25 AT KELLOGG CENTER, MSU

A three day tutorial offering intensive exposure to basic concepts of myofascial release manipulative therapy will be offered by MSU-COM and the MSU College of Human Medicine April 23-25 at Kellogg Center.

The course will emphasize direct experience for participants, giving them opportunity to test various forms of motion and motion changes and to palpate various tissues and forms.

Faculty will include Robert C. Ward, D.O., professor of biomechanics at MSU-COM; Anthony Chila, D.O., associate professor of family medicine at the Ohio College of Osteopathic Medicine, and John Peckham, D.O., associate professor of physical medicine and rehabilitation, Texas College of Osteopathic Medicine.

The tutorial has been accredited for 24 hours of Category I credit for D.O.s and M.D.s.

* * * *

ADVANCED MUSCLE ENERGY TUTORIAL (BELOW DIAPHRAGM)
APRIL 26-30 AT LANSING GENERAL HOSPITAL

Examination, analysis and treatment of the lower extremities, pelvis, abdomen and lumbar spine using advanced muscle energy techniques will be taught in a week-long tutorial at Lansing General Hospital.

Sponsored by the MSU College of Osteopathic Medicine and College of Human Medicine, the program has been approved for 40 hours Category I credit for both D.O.s and M.D.s.

Faculty include Paul Kimberly, D.O., former Steunenberg Professor and chairman of the Department of Osteopathic Theory and Methods at the Kirksville College of Osteopathic Medicine; Fred L. Mitchell, D.O., professor of family medicine, and others.

* * * *

UPCOMING CME EVENTS: MARK YOUR CALENDARS!

Upcoming CME events for 1982 sponsored by the MSU College of Osteopathic Medicine will include:

June 14 - 18 Basic Principles of Manual Medicine: a tutorial featuring lectures, demonstrations and practice sessions on the spine, pelvis and extremities using basic principles of manual medicine

July 22 - 26 Intermediate Course on Craniosacral Technique: training in craniosacral palpation techniques
Jerry B. Hook, Ph.D., director of the Center for Environmental Toxicology, is one of four U.S. scientists asked to participate in an Environmental Management Workshop in Cairo, Egypt, from March 28-30. The Egyptian workshops were arranged by the director for international affairs of the U.S. National Institute of Environmental Health Sciences. Dr. Hook's subjects will include major environmental pollutants and detection and control of air pollution.


Robert E. Miller, president of Lansing General Hospital, has been named chairman of the national American Osteopathic Hospital Association for 1982.

Gaston E. Blom, M.D., professor of psychiatry and special education, recently made the following presentations: "Parenting the Special Education Child" for Waverly Schools Special Education Programs; "The Role of Child Mental Health Services with Handicapped Students" for the Michigan Special Education Advisory Committee; and "Student Stress" for the Michigan Elementary and Middle School Principals Association (Region 8).

George F. Ristow, D.O., associate professor of internal medicine, was recently the first osteopathic physician to be elected a fellow in the American Academy of Neurology. He has also been certified in neurology by the American Board of Psychiatry and Neurology for six years, and by the American Osteopathic Board of Neurology and Psychiatry for four years.

ALUMNI ALUMNI ALUMNI ALUMNI

Philip V. Marinelli, D.O., '74, is the author of two articles which appeared in recent issues of Clinical Research: "The Effect of Sampling Sites on Leukocytes in Term Newborns," and "The Effect of Identical Ventilator Settings in Different Disease States." The latter paper was also presented at the third annual Western Perinatal Conference, held in San Diego in January.

Sidney K. Simonian, D.O., '77, is the author of "Methylalcohol Toxicity," published in the January 1982 issue of the Michigan Osteopathic Journal. The article was written during her residency in ophthalmology at Kresge Eye Institute, Wayne State University.

Teresa Hoover Pike, D.O., '79, is in general practice in association with Lloyd Hoxie, D.O. in Mt. Clemens, Michigan. She and her husband Jim Pike are expecting their second child in September.
OMT and the Osteopathic Philosophy