# A PROGRAM EVALUATION STUDY OF OSTEOPATHIC MEDICAL EDUCATION AT MICHIGAN STATE UNIVERSITY USING CLINICAL CLERKSHIP STUDENTS

By

Sylvia Lemus Sharma

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Administration
and Higher Education

1976

ABSTRACT

A PROGRAM EVALUATION STUDY OF
OSTEOPATHIC MEDICAL EDUCATION AT MICHIGAN STATE UNIVERSITY
USING CLINICAL CLERKSHIP STUDENTS

By

Sylvia Lemus Sharma

Problem

Osteopathic medical education has undergone dramatic growth within the last decade. After a lapse of fifty years, Michigan State University College of Osteopathic Medicine [MSU-COM] was the first of five new colleges to be established and became the first publicly supported university-based osteopathic institution. The development of MSU-COM in 1969 thus marked a significant departure for the osteopathic profession from the free-standing, privately supported college founded in the early stages of osteopathic medical education.

Unfortunately little research or discussion has focused on osteopathic medical education. The existing framework of knowledge about osteopathic medical training when this study was undertaken was both limited and inadequate in consideration of the new pattern of growth of the profession. Michigan State University College of Osteopathic Medicine occupied a unique position in osteopathic medical education for the examination of professional education as it developed. MSU-COM was both receptive to a program evaluation study and was interested in improving its training as part of its educational commitments. This study was in fact supported by the College and represented the first attempt by an educator outside the profession to study osteopathic medical education at a single college.

## Purpose of the Study

The purpose of this study was to evaluate a professional training program leading to the Doctor of Osteopathy degree using several interrelated procedures. Part of the task was to obtain, document, and analyze the views and concerns of an entire class of MSU-COM clinical clerkship students near the end of their training about the cumulative impact of their osteopathic medical education and about their profession. Based on student responses, a definitional statement about the MSU-COM program was developed and submitted to College faculty and administrators for verification of some of the findings and reactions relative to curricular implications. By employing these procedures, the intended practical outcome was to provide faculty and administrators with a structure by which the osteopathic medical program could be examined.

## Design of the Study

The main population of interest consisted of clinical clerkship students who were at least six months into the final year of their three-year medical program, were also members of the graduating class of August 1975, and had completed the first two years of osteopathic medical education at MSU-COM. With the exception of one transfer student, the other 64 members of the August 1975 graduating class satisfied these research requirements. In addition six students were included in the interview population: 2 deceased students who would have graduated in August and 4 out-of-phase students. A total of 70 students participated in a taped semi-structured personal interview which involved the use of the critical incident technique and was developed by the researcher with advice from the dissertation advisor,

Dr. Paul L. Dressel, and College faculty, administrators and students. The taped interview data were later transcribed and analyzed by noting patterns of responses or particularly insightful statements of viewpoints expressed by students. Additional data about the August 1975 graduates were obtained from sixty-one of sixty-four students who were willing to complete and return a short questionnaire regarding their background and their views about changes in medicine and medical care, and from the College's Office of Student Affairs. These data were hand-tabulated and used with student interview responses in the preparation of the definitional statement.

Reactions from College faculty and administrators, the Directors of Medical Education at the affiliated osteopathic teaching hospitals, and other students were utilized in developing the procedures for this study. Feedback from selected College faculty and administrators were used in verifying the findings and in identifying their response relative to curricular implications.

## Major Findings and Conclusions

The major findings of the study were related to the development of a definitional statement based on student responses about the MSU-COM program and faculty reaction to it. The statement was divided by topic: (1) a profile of MSU-COM August 1975 graduating class; (2) clinical clerkship concerns; (3) Unit I and Unit II concerns; (4) osteopathic manipulative therapy training (OMT); (5) students' views on the D.O. physician and osteopathic philosophy and concepts; and (6) the future of the osteopathic profession.

Reactions obtained from MSU-COM faculty and administrators indicated the definitional statement interfaced with other in-house evaluation efforts served several purposes some of which were:

(1) reinforced knowledge about problem areas in the College program,

(2) spurred the development of a clinical clerkship student orientation and the plans for hiring additional staff for the clinical clerkship component,

(3) encouraged the development of a College-sponsored retreat with volunteer clinical instructors to improve communication,

(4) served as a basis for study by members of the College's in-house accreditation committee,

(5) provided the College's Admissions Office with new information about the characteristics of a graduating class of MSU-COM students and served as a start toward collecting background data about students.

The procedures used in this study appeared useful for evaluating a professional training program. The specific results identified the views and concerns of osteopathic medical students about their training and their profession and contributed to knowledge about the characteristics of those entering members of the osteopathic medical profession. With regard to curricular implications for the College, the development of a definitional statement provided the College faculty and administrators with a structure by which the MSU-COM program could be examined. There were indications from College faculty and administrators that this research study interfaced with other in-house evaluation efforts provided the basis for specific changes. Recommendations for further research were to extend this study to either a longitudinal or a comparative study with other classes, and to develop research focusing on osteopathic medical education at the national level.

ACKNOWLEDGMENTS

The candidate wishes to express appreciation to many individuals who aided her during the planning, field work, writing, and analyzing stages of this thesis. Specifically, I am indebted to these individuals for their help:

Dr. Paul L. Dressel, the major advisor for this dissertation, has been invaluably helpful and encouraging. I have deeply appreciated the opportunity to work with Dr. Dressel on the College of Osteopathic Medicine Project in the Office of Institutional Research.

Dr. Vandel C. Johnson, Chairman of the guidance committee, has supported me from the beginning of my doctoral studies. Dr. Walter Johnson and Dr. Donald Nickerson have given their professional advice and encouragement. Dr. Lois Bader, who served as my cognate advisor, provided the needed guidance and support in that area.

The Michigan State University College of Osteopathic Medicine has contributed to this dissertation through its financial support of the project in the Office of Institutional Research. The College of Osteopathic Medicine administrators, Dean Myron S. Magen and Associate Dean Philip E. Greenman, students and faculty, and the Directors of Medical Education at each of the affiliated osteopathic teaching hospitals have cooperated and assisted in making this study possible.

Finally, I am grateful for the help received from a special colleague, Jagdev M. Sharma.

TABLE OF CONTENTS

LIST OF TABLES

## LIST OF FIGURES

# CHAPTER I

# THE PROBLEM

## Background

Within the last decade five new colleges of osteopathic medicine have been established.[1] This recent development has been dramatic for the osteopathic medical profession since no new colleges were established since 1916. Michigan State University College of Osteopathic Medicine [MSU-COM] was the first of the new osteopathic medical colleges to be established and was the first to become a publicly supported, university-based institution. Its development marks a departure for the profession from the free-standing, privately supported colleges originally founded in the early stages of the profession.

Unfortunately little research or discussion has focused on osteopathic medical education. In consideration of the significance of the establishment of Michigan State University College of Osteopathic Medicine, this important area of study was undertaken with the

---

[1] Subsequent to the founding of MSU-COM, four other colleges of osteopathic medicine have been established which depart from the first D.O. college, the Kirksville model. The West Virginia School of Osteopathic Medicine, Greenbrier (1972) and the Oklahoma College of Osteopathic Medicine and Surgery (1972) are both publicly supported and free-standing. The Texas College of Osteopathic Medicine (1970) is publicly supported and under the jurisdiction of North Texas State University. Ohio University College of Osteopathic Medicine (1975), which will admit its first students in September 1976, is the second osteopathic medical college to become both publicly supported and served by the university's basic science departments.

intention of contributing to the improvement of osteopathic medical education at MSU-COM and to information about students in particular as the pattern of osteopathic medical education leans toward affiliation with established institutions of higher education.

## Osteopathic Medical Education

The pattern of growth and development of osteopathic medical education began with its colleges. The first osteopathic college was established by Dr. A. T. Still in 1892 at Kirksville, Missouri, and was then called the American School of Osteopathy. It was a privately supported, free-standing institution with Dr. Still as its president and his son Charles E. Still as vice-president. According to the school's catalogue the requirements for admission were:

1. Creditable evidence of good moral character.

2. Satisfactory evidence of good English education as follows: (a) In English, an essay of not less than 200 words, judgment on which will include thought, construction, spelling, and handwriting. (b) A good knowledge of arithmetic including compound numbers, percentage, ratio, proportion, and the metric system. (c) A fair knowledge of history and geography, especially of the fundamental principles. Candidates who fail in one or two of the above named branches may be admitted to the regular course of study, but such conditions must be removed before the beginning of the second term.

3. In place of this examination or any part of it, the faculty will accept the official diploma or certificates of any reputable literary or science college, academy, normal school or high school, or a teacher's certificate, and enroll the applicant upon presenting of such certificate by passing examination in some institution near home.

> N.B. Students will find it greatly to their advantage to matriculate before the opening of the term and be in attendance from the opening of the course.[1]

After 4 semesters of the college curricula, students were awarded the Doctor of Osteopathy degree.

In the late 19th century and the beginning of the 20th century, osteopathic medical colleges proliferated. Meanwhile, the American Osteopathic Association, which was founded in 1896 by graduates of the American School of Osteopathy, sought to standardize and regulate curricula at the various osteopathic colleges. In 1904, the standard course of instruction was increased to three years. By 1916 the four-year curriculum was made compulsory.[2]

The publication of the Flexner Report of 1910 had a sobering effect on medical education. It identified serious problems plaguing all medical schools including osteopathic colleges which were: (1) low entrance requirements, (2) deficient laboratory equipment, (3) a lack of clinical materials, (4) no coordination of didactics with clinical instruction, and (5) poor instruction. The Flexner Report criticized osteopathic colleges in particular because no serious research was being conducted on osteopathic principles. It also identified that training was weak in the area of manipulative treatment since students had no supervised patient experiences until after graduation. The Flexner Report encouraged the closing of proprietary medical schools, the

---

[1]Peter Kong-ming New, "The Application of Reference Group Theory to Shifts in Values: The Case of the Osteopathic Student" (Ph.D. dissertation, University of Missouri, 1960) pp. 33-34.

[2]A Staff Report from the Citizens Committee on Education for Health Care, Osteopathy in the United States and Michigan (August, 1967) p. 1.

reformation of medical education, and the disappearance of medical sects, maintaining that "the dissenter cannot live on high entrance and educational standards."[1]

Although the establishment, growth, and decline of some thirty-seven schools of osteopathy came before 1910, the publication of the Flexner Report on the state of medical education did spur the profession to close many of its substandard schools.[2] Seven osteopathic colleges survived this period of medical education reform. These were: Kirksville College of Osteopathy and Surgery (1892), Des Moines College of Osteopathic Medicine and Surgery (1898), the Chicago College of Osteopathy (1902), the Los Angeles College of Osteopathic Physicians and Surgeons (a consolidation of two schools--the Pacific School of Osteopathy founded in 1896 and the Los Angeles College of Osteopathy founded in 1905), the Philadelphia College of Osteopathy (1899), Massachusetts College of Osteopathy, Boston (1897), and Kansas City College of Osteopathy and Surgery (1916). It is noteworthy that the pattern of development of osteopathic medical colleges as free-standing, privately supported institutions was not altered by the impact of the Flexner Report although one of its main conclusions was that medical education should be conducted as an integrated part of the university.

Later only five osteopathic colleges were supported by the profession. The Massachusetts College was closed in 1940 and as a

---

[1]Abraham Flexner, Medical Education in the United States and Canada, Carnegie Foundation for the Advancement of Teaching, Bulletin No. 4 (New York: The Merrymount Press, 1970) p. 172.

[2]Ibid., New, "The Application of Reference Group Theory to Shifts in Values: The Case of the Osteopathic Student," p. 74.

result of the merger of the osteopathic and allopathic medical professions in California, the Los Angeles College of Osteopathy became a medical school, and granted its first M.D. degree in 1962.[1,2,3]

No new schools of osteopathic medicine were developed for over fifty years until the establishment of Michigan State University College of Osteopathic Medicine by Public Act 162 signed in 1969. Today there are a total of ten D.O. colleges. MSU-COM, the College of Osteopathic Medicine and Surgery, Des Moines, and Oklahoma College of Osteopathic Medicine and Surgery all offer three-year programs and the remaining colleges offer four-year programs.

Michigan State University College of Osteopathic Medicine

The need for a D.O. college in the State of Michigan was apparent to the profession for some time. In 1959 the Michigan Association of Osteopathic Physicians and Surgeons, Inc., announced that a primary program of the association would be to establish a college of osteopathic medicine in Michigan. Michigan residents had ranked second in the number of students attending D.O. colleges for an extended period.[4] The registry of osteopathic hospitals for 1966-67 indicated that over 11 percent of osteopathic hospitals were located in Michigan and were providing clerkship and graduate training for the

---

[1]Ibid., Osteopathy in the U.S. and Michigan, pp. 1-2.

[2]Ibid., New, "The Application of Reference Group Theory to Shifts in Values: The Case of the Osteopathic Student," p. 71.

[3]See Alexander R. Tobin, "The Osteopathic Story in California," a speech presented before the Texas Osteopathic Medical Association, May 11, 1972.

[4]Ibid., Osteopathy in the U.S. and Michigan, p. 18.

profession. The 1971 survey statistics published by the U.S. Public Health Service identified that D.O.'s comprised over 13 percent of the non-federal physician population in Michigan, which was the largest concentration of D.O.'s in the nation. In 1967 a Citizens Report on Osteopathy in the U.S. and Canada was submitted to the State Department of Education documenting the extraordinary growth of the osteopathic profession since World War II in Michigan.

As a result of consideration of social, educational and political factors the Michigan State Legislature enacted public legislation in 1969 to establish a publicly supported, university-based college of osteopathic medicine at the Michigan State University campus. Subsequently the Michigan College of Osteopathic Medicine, originally chartered as a privately supported, free-standing institution in 1964, became the Michigan State University College of Osteopathic Medicine and moved from Pontiac, Michigan, to East Lansing in 1971. It joined three existing university-based allopathic medical schools in Michigan which are located at: (1) The University of Michigan, Ann Arbor (1850), (2) Wayne State University, Detroit (1956), and (3) Michigan State University, East Lansing (1964).

Michigan State University College of Osteopathic Medicine occupies a unique position in osteopathic medical education for the examination of professional education as it develops. Already located at Michigan State University campus were the College of Veterinary Medicine (1913), and the College of Human Medicine (1964). MSU-COM has an organizational structure unlike other osteopathic medical schools in that it jointly administers the University's basic science departments with other colleges.

In 1974, the first graduating class completed their entire training through the three-year MSU-COM curriculum. Michigan State University College of Osteopathic Medicine is developing its educational objectives along the following guidelines as represented in the College's catalogue:

--- "Provide students with comprehensive medical knowledge and skills to serve as a foundation for a lifetime of learning."

--- "Produce 'basic physicians' with competencies to pursue a career in family practice, specialty practice, academic medicine, administration, public health, or research."

--- "Provide organized, practical, and contemporary continuing education for graduate physicians."[1]

As a professional school MSU-COM was both receptive to an evaluation study and was interested in improving its training program as part of its educational commitments. This study was in fact supported by the College and was the first attempt by an educator outside the profession to examine systematically the educational direction of an osteopathic medical college. For these reasons, the College of Osteopathic Medicine was selected for implementing this study.

## Purpose of the Study

The purpose of this study is to evaluate a professional training program leading to the Doctor of Osteopathy degree using several interrelated procedures. Part of the task is to obtain, document, and analyze the views and concerns of a class of MSU-COM students near the end of their training about the cumulative impact of their osteopathic medical education and about their profession.

---

[1]Michigan State University College of Osteopathic Medicine, Supplement to the University Catalogue, p. 7.

Based on student responses, a definitional statement about the osteopathic medical program will be developed and submitted to College faculty and administrators for verification of some of the findings and for identification of their reactions relative to curricular implications. By employing these procedures, the intended practical outcome is to provide College faculty and administrators with a structure by which the osteopathic medical program could be examined. The end product is to seek answers to the following broad questions:

(1) How do students or beginning professionals feel they can be better trained during their professional education program?

(2) Can the identification and communication of students' concerns assist in providing direction, unity, and coherence for students in the program and for faculty planning it?

## An Evaluation Model

Through his extensive research and work in the area of educational research, Dr. Paul L. Dressel has developed a student-oriented evaluation model based on essential competencies or outcomes which he partly described in his book College and University Curriculum.[1] It is proposed that the Dressel-competency-evaluation-model developed for primarily undergraduate level training has value and applicability for professional schools and is the framework for which some of the procedures in this study were developed.

Instead of asking what courses students in a professional program ought to take or what knowledge is essential, this approach

---

[1]Paul L. Dressel, "Chapter 13: Competencies and their Attainment," College and University Curriculum (Berkeley: McCutchan Publishing Company, Second Edition, 1969) pp. 283-304.

concentrates on what students near the end of their training think and feel about the cumulative impact of their educational experiences. Based on student responses a definitional statement about the professional program can be developed and serve as a structure from which curriculum can be examined. Heretofore definitive curriculum studies have not attempted to define professional program outcomes or competencies as viewed by students and to relate these to the strengths and weaknesses of professional level education.

## Assumptions

The essential assumptions which underlie this study and the foregoing model are:

1. Students in their final year of osteopathic medical training can provide useful feedback about the cumulative impact of their educational experiences.

2. The identified views and concerns of senior osteopathic medical students about their educational experiences can be used to develop a definitional statement which can serve as a structure to examine the strengths and weaknesses of a professional education program.

3. Students near completion of the requirements for the Doctor of Osteopathy degree can provide recommendations as to the future development of the profession and can provide insightful commentary about the definition of an osteopathic physician.

4. The documentation of background characteristics of osteopathic students in a graduating class can serve as a beginning of the definition of those characteristics of a class of students entering the osteopathic medical profession.

5. An educator outside the osteopathic medical profession is in a unique position to obtain, document, and analyze data from senior osteopathic medical students regarding their views and concerns about their medical education and the future of their profession and to employ the data in the preparation of a definitional statement about the College program.

## Limitations

This is an exploratory and descriptive study. It should be noted that the evaluation model as adapted for use in this study does not presume to account for curriculum changes over time and no attempt will be made to generalize beyond the population of this study. The responses disclosed by osteopathic medical students will be reported as those perceived to be of concern and will necessarily be commentary students were willing to express in a tape recorded interview format.

## Definition of Key Terms

The reader may better understand this study if certain terms are initially defined.

MSU-COM Curriculum refers to the three-year program of study necessary for completion of the requirements of the Doctor of Osteopathy degree. The curriculum is divided into three phases or units beginning Fall Quarter of the University academic calendar. Students complete their studies in consecutive quarter sessions ending Summer Term of the third year. Students who do not wish to complete their studies in three years have the option to graduate out-of-phase.

Unit I refers to the first phase of the MSU-COM training program and is composed of two 10 week sessions beginning Fall Quarter.

Instruction is designed around basic science concepts. Students are required to enroll in the following courses:

A. Fall:
- Physiology
- Histology
- Gross Anatomy
- Medical Biochemistry
- Health Behavior Science I
- Physical Diagnosis

B. Winter:
- Pharmacology
- Microbiology
- Medical Biology
- Osteopathic Exam
- Preceptor
- Health Behavior Science II
- Physical Diagnosis

Unit II is the second and longest phase of the MSU-COM program. It is composed of six 10 week sessions. Instruction is organized around systems biology didactics. Students enroll in the following courses arranged by quarter of the University calendar:

A. Spring:
- Hematology
- Clinical Endocrinology
- Dermatology
- Clinical Judgment
- Pharmacology
- Osteopathic Exam
- Preceptor
- Health Behavior Science III
- Clinical Science III

B. Summer:
- Neurology
- Osteopathic Exam
- Preceptor
- Health Behavior Science IV
- Clinical Science IV

C. Fall:
- Cardiovascular
- Osteopathic Exam
- Preceptor
- Health, Medical Care, and Society I
- Clinical Science V

D. Winter:
- Respiratory/Renal
- Osteopathic Exam
- Preceptor
- Health, Medical Care and Society II
- Clinical Science VI

E. Spring:
- Gastrointestinal
- Osteopathic Exam
- Preceptor
- Health, Medical Care, and Society III
- Clinical Science VII

F. Summer:
- Growth and Development
- Osteopathic Exam
- Preceptor
- Health, Medical Care, and Society IV
- Clinical Science VIII

Unit III is the third and final phase of the MSU-COM program. It is referred to as the clinical clerkship year. It starts in

September, Fall Quarter; runs through Winter and Spring Quarters; and is finished Summer Quarter with graduation in August. In Unit III, students complete clinical experiences of designated variable units of time in osteopathic teaching hospitals and mental hospitals affiliated with MSU-COM. In most cases osteopathic students are required to move to Southern Michigan where most of the osteopathic teaching hospitals are located. The curriculum for Unit III is as follows for 1974-1975 year:

| Clerkship | Number of Weeks |
|---|---|
| Medicine | 8 |
| Pediatrics | 5 |
| Surgery | 4 |
| Obstetrics | 4 |
| Otorhinolaryngology (ear, nose, throat) | 1 |
| Ophthalmology | 1 |
| Neurology | 2 |
| Orthopedics | 2 |
| Emergency Room | 2 |
| Anesthesiology | 2 |
| Psychiatry | 4 |
| Junior Partnership | 6 |
| Electives | 5 |

Systems refers to the organization of didactic medicine which includes the basic sciences, behavioral sciences, and clinical sciences around the hematopoietic, neuromuscular, cardiovascular, respiratory, renal, gastrointestinal, and obstetrical-gynecological themes.

Clinical Clerkship refers to the third year of the MSU-COM program in which students spend time in teaching hospitals in Michigan. Students in this phase of the curriculum are referred to as clinical clerkship students, clerks, or externs. (See Unit III)

Rotation refers to the variable unit of clerkship experience such as medicine, surgery, et cetera, and is synonymous with the term "service."

Preceptor refers to the volunteer clinical faculty or general practitioner participating in the College's Preceptor Program.

Preceptor Program refers to the placement of a student in an osteopathic family physician's office or clinic one afternoon a week for the purpose of obtaining experience in the operation of a family practice, experiences in osteopathic skills examination, and contact with patients and their pathologies. This program is taught as an introduction to the principles of family medicine and is regarded as a clinical experience for Unit I and Unit II.

Junior Partner refers to osteopathic general practitioners who volunteer as clinical instructors in the Junior Partnership Program.

Junior Partnership Program refers to the clinical clerkship rotation in Unit III which consists of 6 weeks with an osteopathic general practitioner. Instructional goals include: (1) patient, office, and personnel management, (2) record-keeping systems, bookkeeping systems, and third party requirements, and (3) out-of-office experiences such as hospital rounds, community and public health functions, et cetera. This rotation provides training and experiences not presented in Unit I and Unit II nor in the clinical clerkship rotations.

Affiliated Teaching Hospitals refers to osteopathic hospitals or mental institutions associated through contract to MSU-COM. These are geographically located away from MSU-COM, primarily in the southeastern portion of the state.

Osteopathic Medicine encompasses all phases of medicine but goes beyond general medicine in its distinctive recognition of the function of musculoskeletal system in health and disease.

Osteopathic Manipulative Therapy (OMT) is defined as a potentially useful therapeutic medium for both the maintenance of normal function and the correction of dysfunction. It is regarded as something inclusive of the total practice of medicine.

Muscle Energy is a designation given to a group of manipulative procedures which require patient cooperation in that the patient is asked to actively contract a group of muscles which creates a relaxed effect and thus assists the process of restoration of motion in a joint.

Thrust Technique is a designation given to a type of manipulative procedure where a force is directed through a joint to overcome a restriction in joint mobility.

Director of Medical Education refers to an individual associated with each hospital who is responsible for all phases of education conducted there. The responsibilities of this person include coordination of continuing education for staff physicians, education programs for residents, interns, and clinical clerkship students.

American Osteopathic Association (AOA) is the official organization of the osteopathic medical profession. The objectives of this organization are to promote the public health, to encourage scientific research, and to maintain and improve high standards of medical education in osteopathic colleges. Its headquarters are in Chicago, Illinois, at 212 East Ohio Street.

Clinical Clerkship Committee refers to a College committee that studies the clerkship year program and is comprised of faculty and students from the College, chaired by the Associate Dean.

## Overview

In Chapter II, a review of the literature related to the study is presented. It includes a discussion of osteopathic medical education research, current problems in professional education, and changes in medical school curriculum.

Chapter III, Methodology of the Study, is comprised of a definition of the research population, procedures, and methods of reporting results.

Chapter IV, Presentation and Analysis of Data, contains the data and findings of the study. It is divided into six sections which are: Section 1: The MSU-COM August 1975 Graduating Class: A Student Profile; Section 2: Clinical Clerkship Experience; Section 3: Unit I and Unit II Training; Section 4: OMT Training; Section 5: Students' Conceptions of the D.O. Physician; Section 6: The Future of the Profession.

Chapter V presents conclusions and recommendations of the study based on the findings.

# CHAPTER II

# RELATED LITERATURE

## Introduction

In Chapter I a discussion was presented on the development of osteopathic medical education with particular reference to the role of MSU-COM in the recent accelerated growth of osteopathic colleges. This Chapter will focus on research relevant to osteopathic medical education and will address the following topics: (1) osteopathic medical education research, (2) problem areas in professional education, and (3) changes in medical school curriculum.

## Osteopathic Medical Education Research

In spite of the attention during the last twenty years by psychologists and sociologists to the field of medical education research, very few studies have examined osteopathic medical students or osteopathic medical education. To date only one major sociological study has been conducted with osteopathic medical students. Peter New completed a doctoral dissertation entitled, The Application of Reference Group Theory to Shifts in Values: The Case of the Osteopathic Student, (1960, University of Missouri).[1] A reading of New's unpublished

[1]Peter King-ming New published parts of his dissertation findings earlier in the article, "The Osteopathic Student: A Study in Dilemma," in E. Gartley Jaco (ed.). Patients, Physicians, and Illness. (Glencoe, Illinois: The Free Press, 1958) pp. 413-420.

doctoral dissertation reveals his work was a participant/observation case study conducted over eight months at four of the six D.O. colleges then in existence. Although the major focus of his research was to apply reference group theory to osteopathic students' perceptions about membership in a minority profession, New found faults with reference group theory as applied to the D.O. student population because the actual status of the osteopathic profession was increasingly accepted as a legitimate medical career. New's non-theoretical findings, however, are of historical interest.

New developed a profile of background characteristics about the 103 D.O. students he interviewed. He found that many of these students were older, 28.8 years old in their senior year. Some had had previous health related careers before entering the osteopathic profession. He also identified that several students entered the profession "by accident" in contrast to a few who always wanted to become osteopathic physicians. The limitations of New's largely historical data about D.O. students are related to the fact that he was not able to systematically select his interview population and it is not known if population variations existed at the four D.O. colleges since he treated all students as a single research population.

Nevertheless, in addition to the student profile, New also provided some commentary about osteopathic manipulative training. Based on perceptions gained in talking with students and from observing instruction in OMT, New concluded that: (1) OMT was not systematically taught, (2) there was a lack of motivation to learn the advantages of manipulation by students who looked upon osteopathy as a second choice, and (3) that most of the students were non-committal on the topic of manipulation.

Other research using osteopathic medical students has been done by the American Osteopathic Association. The results of a Fall 1970 survey of first year osteopathic students' reasons for choosing a career in osteopathic medicine were described in the article, "Motivational Factors Influencing a Student's Selection of Osteopathic Medicine as a Career," (1971) by Albert E. O'Donnell, Associate Director of the Office of Education, American Osteopathic Association.[1] Six hundred and twenty three first year students at the 7 existing D.O. colleges were asked to select from a list of 16 factors, the five factors that most influenced his/her decision to become an osteopathic physician. The five most frequently selected factors were: (1) a desire to be of help to people (93%), (2) the influence of another person in this field (76%), (3) a natural field to pursue in preference to others (69%), (4) permits one "to be own boss" (39%), and (5) the expectation of financial income and economic security (33%). Ninety-one students (14.6%) ranked the factor, "close relationship to another field which could not be attained for some reason," from 1 through 5 in importance. O'Donnell then compared the 1970 survey data with an earlier but similar study conducted in 1967 and pertaining to the five D.O. colleges then in existence. He found that the 509 first year students surveyed in 1967 chose the same factors as were chosen in 1970. However, only 5.1% of the students in 1967 listed the factor, "inability to enter a similar

---

[1]Albert E. O'Donnell, "Motivational Factors Influencing a Student's Selection of Osteopathic Medicine as a Career," Journal of American Osteopathic Association, 70, 5 (January, 1971) pp. 485/105 (23) - 487/107 (25).

field," as a factor from 1 through 5 in importance. These comparisons reveal an increase in 1970 in the number of students willing to admit that the selection of a D.O. career is due to the factor of a "close relationship to another field which could not be attained for some reason."

The A.O.A. Office of Education also collects background data about entering students which are published in the Journal of the American Osteopathic Association. The most recent article about background characteristics of entering D.O. students appeared in the Journal of the American Osteopathic Association Education Annual, Vol. 73, Supplement, 1974.[1] A review of this article indicates that 883 students were admitted to D.O. colleges from a population of 10,190 applicants. One hundred and eighty one of these students were females. The average grade point of the entering student population on a 4-point scale was 2.93 and the average age was 24.8 years with a range from 20 to 48 years. Each of the seven D.O. colleges admitted at least 4 applicants over 30 years old. Previous occupations were represented in the allied health fields by 28.5% of the class in the following areas: medical technologist, medical laboratory technician, radiologic technologists, nurses, inhalation therapists, surgical technicians, and physical therapists. Other careers represented were: chemists, biologists, registered pharmacists, and pharmaceutical representatives. In addition, there was one former missionary, two chiropractors, three Peace Corpsmen, and one Roman Catholic priest. The geographical sources of students indicated that the State of Michigan ranked second to

---

[1]See Philip E. Greenman, "Osteopathic Undergraduate Education," Journal of the American Osteopathic Association, 73, Supplement (1974) pp. 11-27.

Pennsylvania in sending the greatest numbers of students to D.O. colleges. Some of the largest groups of students were from Michigan State University (24 students) and from the University of Michigan (21 students).

Research on osteopathic medical education and its processes is virtually non-existent.[1] A review of the latest revision of the Accreditation Policies and Procedures for the College of Osteopathic Medicine (1975), includes procedures for institutional self-study as part of the accreditation process. As D.O. colleges begin to devise their own plans for self-appraisal and improvement, a practical outcome is research about osteopathic medical education and its processes.

In summary, a 1960 unpublished doctoral dissertation by Peter New is the only major sociological study conducted using osteopathic students that has historical importance. The most recent published data about D.O. students is limited to background statistics collected by the American Osteopathic Association. These statistics are designed to describe D.O. students as a national population and and are not summarized relative to distinctions by individual D.O. colleges. As a result of the move to a centralized application service through the American Association of Colleges of Osteopathic Medicine (AACOMAS), the development of a computerized student information system is in the process for the future. This would make the retrieval of student characteristics at a single D.O. college possible and would assist in identifying individual college admissions patterns. Although

---

[1] Abraham Flexner in Medical Education in the United States and Canada, Bulletin No. 4, the Carnegie Commission on Higher Education, Merrymount Press (1910), is the first published study of osteopathic medical training.

research on osteopathic medical education is virtually non-existent, the implementation of the self-study as part of the accreditation procedures is a beginning toward osteopathic medical education research.

## Problem Areas in Professional Education

A review of the literature about professionals, professionalization, and professional education indicates it is not easy to define what constitutes a profession which therefore creates a basic problem in defining professional education. Edgar H. Schein in his book Professional Education (1972) found that social scientists who have attempted to define "professional" use the multiple criteria definition and give varying weight or values to each criteria. Based on an analysis of the writings of a number of sociologists who have studied the professions intensively during the past several decades, (Goode, 1957; Blau and Scott, 1962; Barber, 1963; Hughes, 1963; Wilensky, 1964; Gilb, 1966; Abrahamson, 1967; Parsons, 1968; Gross, 1969; and Moore, 1970), Schein develops the following multiple criteria definition of the concept of professionalism which, he noted, is best applicable to the professions of medicine, law, and divinity:

1. "The professional, as distinct from the amateur, is engaged in a full-time occupation that comprises his principal source of income.

2. The professional is assumed to have a strong motivation or calling as a basis for his choice of a professional career and is assumed to have a stable lifetime commitment to that career.

3. The professional possesses a specialized body of knowledge and skills that are acquired during a prolonged period of education and training.

4. The professional makes his decisions on behalf of a client in terms of general principles, theories or propositions which he applies to the particular case under consideration,

i.e., by "universalistic" standards, in terms of Parson's pattern variables (Parsons, 1959).

5. At the same time, the professional is assumed to have a service orientation, which means that he uses his expertise on behalf of the particular needs of his client. This service implies diagnostic skill, competent application of general knowledge to the special needs of the client, and an absence of self-interest.

6. The professional's service to the client is assumed to be based on the objective needs of the client and independent of the particular sentiments that the professional may have about the client. The professional promises a "detached" diagnosis. The client is expected to be fully frank in revealing potentially unlikeable things about himself; the professional as his part of the contract is expected to withhold moral judgment, no matter how he may feel personally about the client's revelation. Thus, the professional relationship rests on a kind of mutual trust between the professional and the client.

7. The professional is assumed to know better what is good for the client than the client himself. In other words, the professional demands autonomy of judgment of his own performance. Even if the client is not satisfied, the professional will, in principle, permit only his colleagues to judge his performance. Because of this demand for professional autonomy, the client is in a potentially vulnerable position. How does he know whether he has been cheated or harmed? The profession deals with this potential vulnerability by developing strong ethical and professional standards for its members. Such standards may be expressed as codes of conduct and are usually enforced by colleagues through professional associations or through licensing examinations designed and administered by fellow professionals.

8. Professionals form professional associations which define criteria of admission, educational standards, licensing or other formal entry examinations, career lines within the profession, and areas of jurisdiction for the profession. Ultimately, the professional association's function is to protect the autonomy of the profession; it develops reasonably strong forms of self-government by setting rules or standards for the profession.

9. Professionals have great power and status in the area of their expertise, but their knowledge is assumed to be specific. A professional does not have a license to be a "wise man" outside the area defined by his training.

10. Professionals make their service available but ordinarily

> are not allowed to advertise or to seek out clients. Clients are expected to initiate the contact and then accept the advice and service recommended, without appeal to outside authority."[1]

Schein further indicates that the preceding criteria can be used as a scale to judge any given occupational group in terms of its "degree of professionalization." Wilbert E. Moore in collaboration with Gerald W. Rosenblum in The Professions: Roles and Rules (1970), has proposed that the preceding criteria be arranged as a scale of professionalization particularly numbers 1, 2, 8, 3, 5 and 7, in that order.[2]

Lewis Mayhew in the research monograph Changing Practices for the Professions (1971), offers a theoretical definition of "profession" and extends this into a discussion of the curricular problems which formal professional education faces. According to Mayhew, professionals are: "individuals with specialized knowledge obtained through intensive education which allows them to provide esoteric services in a near-monopoly fashion to a public which recognizes and accepts the utility of the monopoly."[3] The problems associated with this theoretical definition and formal professional education emphasized by Mayhew are: (1) the nature of the specialized knowledge is not clear in that it is a mixture of practical and theoretical knowledge, (2) the best ways in

---

[1] Edgar H. Schein, Professional Education, the Carnegie Commission on Higher Education, (New York: McGraw-Hill, 1972) pp. 8-9.

[2] Wilbert E. Moore, Chapter 1: "The Criteria of Professionalism," The Professions: Roles and Rules, (New York: Russell Sage Foundation, 1970).

[3] Lewis Mayhew, Changing Practices in Education for the Professions, (Southern Regional Education Board Research Monograph 17, 1971) p. 1.

which knowledge is acquired are not known, and (3) for some professions, the "monopoly" of the right to provide esoteric services does not exist. Mayhew further states that the aims of formal professional education also include:

> "(1) ethical principles which direct the vocation to serve society and to safeguard the public when the public accepts without understanding the advice or services offered," and "(2) a professional ethos that enables the individual practitioner to feel a deep and lifelong commitment to the practices and life-modes of the profession....Both the process of acquiring a set of personal professional ethics and the process by which one is acculturated in a sub-group is a complex matter in a radically changing society. This process is exceedingly difficult to bring about or describe."[1]

Although Mayhew uses the term "acculturation," a review of the literature in the field of sociology of professions by V. Olesen and E. W. Whittaker suggests that the concepts, "acculturation," "assimilation," and "enculturation," are sometimes seen as synonymous with socialization. In the essay "Studies of Professional Socialization," Olesen and Whittaker indicate that at present there are no theories of professional socialization and few systematic efforts to construct them, although there is no lack of potentially adequate concepts which could be used to study professions. These authors additionally discuss that:

> "those whose careers are tightly enmeshed with curricular and practical problems of educators in the professions and those who worry about manpower allocation would perhaps prefer to settle for or deal with 'training' as an alternative to 'socialization.' 'Training' holds out neat visions of an experimental learning theory model with a before-after design and for those reasons may seem virtuously simple to the sociologist floundering with understanding of broader complexities of role ambiguities and cultural transmission implicated in student learning of a profession. Moreover, sociologists may long for concepts like 'training' because

---

[1] Ibid., Mayhew, p. 2.

> 'socialization' itself is not without certain ambiguities, either in its various meanings or the uses to which it has been put."[1]

It is useful at this juncture to point out that the concept of "perspectives" borrowed from theories of symbolic interaction has been used to analyze and probe the emergent views of medical students in the study by Howard Becker et al. described in Boys in White (1961). Becker refers to perspectives as "the co-ordinated patterns of ideas and actions that students develop in attempting to solve the problems they see in their new environment."[2] Becker's investigation examined the initial, provisional, and final perspectives of students at the University of Kansas Medical School. Becker admits that this methodology or approach requires focusing upon students' major concerns rather than on the researcher's. Becker further develops his research methods by stating that:

> "When students pause to take up a mental stance outside the present knife-edge of their experience and think of medicine, the medical profession, and their goals within it, their mental vision embraces the social space of the medical school and the even wider reaches of the profession beyond. They use a wide-angle lens. Similarly, their thought refers to many years which they lump together in time....a long-range perspective is the mental process of describing a relatively broad area of social space (an entire profession or school career) extending over an indefinite period of time."[3]

In summary, researchers in the field of professional education have identified that a basic problem for professional education is

---

[1]Virginia Olesen and Elvi W. Whittaker, "Critical Notes on Sociological Studies of Professional Socialization," in John A. Jackson (ed.) Professions and Professionalization, (Massachusetts: Cambridge University Press, 1970) p. 196 and p. 186.

[2]Howard Becker et al., Boys in White, (Chicago: The University of Chicago Press, 1961) p. 67.

[3]Ibid., p. 69.

related to the difficulty in defining what constitutes a profession. Mayhew points out that the definitional criteria do not translate into a formula for professional education. In addition, a review of the field of sociology of professions indicates that at present there is no theory of professional socialization. The concept of "training" is an alternative to "socialization" regarding studies enmeshed with curricular and practical problems. Finally, Becker et al. in Boys in White (1961) provide a useful example employing the concept of "perspectives" to probe and analyze the emergent views of medical students about their profession and their goals within it.

## Changes in Medical Curriculum

Regarding changes in professional education, Lewis B. Mayhew states in the column "Jottings" of the November/December 1970 issue of Change magazine:

> "Professional education is undergoing major transformation, albeit without the drama of the 1910 Flexner Report of medical education which closed over half of the nation's medical schools within a year of its publication."[1]

Professional schools are increasingly viewed as occupying a strategic position for affecting social change and therefore are under pressure to meet certain needs and expectations of society. Larry L. Leslie and James L. Morrison in the article, "Social Change and Professional Education in American Society," (1974) argue that:

> "Professional schools would be wise to respond more directly to societal demands for numbers. If they do not adjust to social needs voluntarily, the public may compel adjustments on terms less satisfactory than otherwise. Evidence of this is clearly visible in the health fields where funding stipulations by the Federal government essentially have dictated

---

[1]Lewis B. Mayhew, "Jottings," Change, 2, 6 (November/December, 1970) p. 81.

> curricular changes, such as a reduction in the training period of physicians."[1]

This review of innovations in medical school curriculum will cover three main aspects: (1) the implementation of the accelerated or three-year medical program, (2) the introduction of integrated curriculum, and (3) the inclusion of social science courses.

## The Accelerated Medical Program

The implementation of the accelerated or three-year medical program is not a new concept. Mark S. Blumberg, under contract to provide staff services to the Carnegie Commission on Higher Education, researched the advantages and disadvantages of the three-year program in the article "Accelerated Programs of Medical Education," (1971) and found that during World War II medical schools adopted the three-year curriculum in response to the wartime shortage of physicians. The war-induced accelerated programs were a variation from today's three-year medical program in that a new class of students were admitted every nine months, permitting two graduating classes in one calendar year. The actual outcome of these three-year medical programs produced only temporary increases in the supply of physicians due to the return to the traditional four-year program and the reduction in admissions. From a review of the World War II situation, Blumberg concludes that an accelerated medical program introduced on a temporary basis would not result in permanent benefits. However, the specific consequences of accelerated programs are not adequately known. The University of

---

[1] See Lary L. Leslie and James L. Morrison, "Social Change and Professional Education in American Society," Intellect, 102, 2356 (March, 1974) pp. 357-360 for a framework of professional education for social change.

Utah Medical School pioneered in the field of accelerated medical programs by continuing with the accelerated program only admitting one class per year instead of one every nine months. Based on telephone interviews with the University of Utah faculty during this period, Blumberg found that the accelerated medical program was well received by students but that faculty were not happy with the work load.

Blumberg defines accelerated programs as those which require less than 45 months to complete. Although this definition theoretically includes programs that reduce the number of credit hours required to receive the M.D. degree, today's accelerated medical programs are essentially compatible with the traditional number of credit hours required for the M.D. degree but are completed in 36 months. In discussing the advantages and disadvantages of the three-year program, Blumberg favors the implementation of the accelerated program. Disadvantages for students in the three-year program include the loss of long summer vacations. Although many students use vacations for clinical elective time, Blumberg admits that the benefits of these elective courses will have to be measured against the benefits of earlier graduation. Blumberg further argues that students who use vacations to work to help finance their educations will have the opportunity to enter the work force a year sooner which can materially reduce the financial burden. Also, round-the-year schedules already exist in medical curricula. The primary benefit of the accelerated program is that graduation at an early age would increase by 2.6 percent the man years of practice per graduate and there would be two graduating classes in one calendar year in the transition to the three-year program from the four-year program. Other factors included in Blumberg's discussion are:

(1) faculty workloads would not be increased due to acceleration but similarly would not be reduced and (2) faculty vacation time would involve coordination. Also students who begin accelerated programs in September would not have schedules consistent with house officer training programs. The unusually high number of graduates seeking internships due to the three-year program, Blumberg maintains, could be handled by the house officer capacity in the United States. Blumberg concludes his analysis by stating that:

> "While accelerated programs will not solve all the nation's physician manpower problems, they certainly seem to be a particularly timely step for the United States. Their benefits outweigh their modest costs."[1]

Up to the late 1960's, very few accelerated programs were developed. By 1972 the American Medical Association reported a total of 28 schools had some form of a three-year program, and that at least 20 additional schools indicated the possibility of incorporating a three-year program.[2] Several interrelated factors led to the increase in numbers of accelerated medical programs. First, for many years medical educators had been examining the length of time necessary to become a practicing physician. The accelerated medical program was seriously discussed at the 1967 conference entitled, "The Optimal

---

[1]Mark S. Blumberg, "Accelerated Programs of Medical Education," Journal of the American Medical Association, 46, 8 (August, 1971) p. 643.

[2]U.S. Department of Health, Education, and Welfare, "The Supply of Health Manpower: 1970 Profiles and Projections to 1990," Dept. HEW Publication (HRA) 75-38, (U.S. Government Printing Office, December, 1974) p. 40.

Preparation for the Study of Medicine."[1] As a result of this meeting several medical educators were convinced that medical school could be shortened for a significant proportion of students. Reasons were related to: (1) the more advanced education which many students had as a result of high school and undergraduate programs, and (2) the high aptitude of a good proportion of students admitted to medical school.[2] Second, the Carnegie Commission Report on Higher Education and the Nation's Health (1970) recommended the acceleration of medical training. The Carnegie Commission Report estimated that there was a crisis in health care and health manpower delivery in the United States based on the influences of five factors which are: "(1) unmet needs for health care, (2) rising expectations of the population for universal access to care, (3) critical shortages in, and inefficient utilization of, health manpower, (4) ineffective financing, and (5) rapidly rising costs."[3] Third, the federal government encouraged the implementation of the accelerated medical program through its capitation grants. A review of the Comprehensive Health Manpower Training Act, 1971, indicates the 1971 Act required that medical schools contain plans to carry out at least three projects during a two year period from a given list of nine.

---

[1]For conference proceedings see Robert G. Page and Mary H. Littlemeyer, (eds.) Preparation for the Study of Medicine, (Chicago: University of Chicago Press, 1969).

[2]Robert G. Page, "The Three Year Medical Curriculum," Journal of the American Medical Association, 213, 6 (August, 1970) p. 1012.

[3]The Carnegie Commission Report on Higher Education, Higher Education and the Nation's Health, (New York: McGraw-Hill Book Company, October, 1970) p. 22.

One of the projects included:

> "To effect significant improvements in curriculum of the school (including shortening the length of time required to complete training program provided by the school)."[1]

Also, the components of the capitation grant formula for fiscal year 1972 included awarding $2,000 more for each graduate of a three-year program as compared to a graduate of a four-year program, and the awarding of $2,500 for each student in the first three years of the program.[2]

Very little systematic research exists on the three-year medical program or its students. In one study by Judith Garrard and Richard G. Weber the differences were examined between students who volunteered to graduate in three-years at the University of Minnesota for the 1969 and 1970 classes.[3] The results of their study indicate no major differences on the following variables: GPA, MCAT scores, Miller Analogy scores, and college credits. They found that "age" was the only biographical characteristic that was a significant difference between three-year graduates and four-year graduates in that three-year graduates were older. Based on the results of the Minnesota Multiphasic Personality Inventory, the Rokeach Dogmatism Scale and the Eron Humanitarian-Cynicism Scales, they identified that the three-year graduate was more oriented toward productive achievement, more expressive, ostentatious and competitive, and less inclined to worry. These

---

[1] U.S. Department of Health, Education, and Welfare, Health Professions Capitation Grants Fiscal Year 1972, Dept. HEW Publication [NIH] 73-460, (Government Printing Office, 1973) p. 6.

[2] Ibid., p. 7.

[3] Judith Garrard and Richard G. Weber, "Comparison of Three and Four Year Medical School Graduates," Journal of Medicine Education, 49, 6 (June, 1974) pp. 547-553.

investigators, however, urged that more research be conducted within a broader framework than the self-selected three-year medical graduate.

Although there has been little research conducted on the three-year student, some criticisms about the three-year medical program have emerged largely emphasizing the disadvantages earlier described by Blumberg. In the article, "The Pros and Cons of a Three-year Curriculum," Philip Greenman additionally emphasizes the need for "maturation" in the three-year student and the loss of time for professional and educational development for faculty. He recommends that "time" be considered as the variable in a medical program and that demonstrated competency levels be regarded as the constant. In this way, flexible curriculum would allow the student to achieve the necessary competency in a fashion appropriate for him or her.[1]

Integrated Curriculum and the Introduction of Social Science Courses

In addition to the changes in the amount of time required to train doctors, there have been parallel innovations in the medical curriculum itself. Medical schools, like other professional schools, have developed interdisciplinary approaches such as emphasizing focal problems and systems biology courses. Robert F. Page, in the article, "The Three-year Medical Curriculum," describes the three-year curriculum at the Medical College of Ohio at Toledo.[2] It is divided into three phases: (1) the introductory phase emphasizes understanding man and his environment in which students are exposed to cellular biology, human

---

[1]Philip E. Greenman, "The Pros and Cons of a Three Year Curriculum," The D.O., 16, 5 (January, 1976) pp. 119-122.

[2]Ibid., Page, "The Three-year Medical Curriculum," pp. 1014-1015.

biology, and human ecology; (2) phase two consists of clinical problems associated with each organ system taught in combination with independent study; and (3) phase three includes intense clinical experience over a period of 52 weeks.

Medical schools have also developed Departments of Community Medicine which are designed to teach the social sciences--sociology, anthropology, and psychology--integrated with the basic curriculum. Lewis B. Mayhew describes the experimentation with new courses and structures in "Chapter 3: Attempted Reforms," in the monograph Changing Practices in Education for the Professions (1971). He found that formal classroom experiences in medical curricula were supplemented by more early clinical experiences; the use of video tapes and sound tapes of lectures, operations, and clinical interviews; and the opportunity for more independent study.

Little research has been conducted on medical curricula innovations. David M. Levine, et al. in the article, "Trends in Medical Education Research: Past, Present, and Future," summarize the discussions at the 1971 Conference convened by the National Center for Health Services Research and Development of the Department of Health, Education, and Welfare for medical educators and social scientists involved in medical education research. The major concern at this meeting was that innovations in medical school curricula have been based on assumptions not systematically tested through research. The following assumptions were of particular issue:

1. Early patient contact will make students more patient oriented; and, thus, they will select careers providing primary care.

2. Medical schools should integrate basic science and clinical teaching because interdisciplinary teaching is superior and will provide a more continuous, comprehensive, and intellectual clinical experience.

3. The introduction of community medicine, not just as a department but as an orientation, is important in the training of medical students. Likewise, the behavioral sciences are important for the exemplary physician of the future.

4. Multiple tracks in medical schools are necessary for the training of physicians to meet the current needs of our health care system.

5. Shortening the medical school curriculum and eliminating the internship will improve our system of medical care without decreasing the quality of the physician produced.

6. A more "humanizing" medical education experience, in which problems would be discussed in social and ethical terms as well as in biological language, is necessary in order to improve the doctor-patient relationship.

7. The role of the physician should be increased to include conscious responsibility for communities of people, various social problems, and ethical issues."[1]

Five areas of future medical education research were identified and a strong emphasis was given to the development of "good research that is problem and not discipline oriented, comparative and not isolated, and longitudinal and not fragmented."[2]

In summary, a variety of innovations and changes in medical curriculum have been identified. The most notable development has been the shortening of the medical program from four years to three years. Parallel curricular innovations have developed which emphasize

---

[1]David M. Levine, et al., "Trends in Medical Education Research: Past, Present, and Future," Journal of American Medical Association, 49, 2 (February, 1974) p. 130.

[2]Ibid., p. 136.

the inter-disciplinary approach as is evidenced by focal problems and systems biology courses. Additionally, social science courses have been incorporated into the basic curriculum. Other curricular changes relate to more early clinical experience, increased independent study, and the use of video tapes and sound tapes. These curricular changes are based on assumptions not tested through research which indicates the need for future research to provide a framework in which informed change can result rather than changes based on untested assumptions and beliefs.

## Chapter Summary

The literature reviewed clearly indicates that research on osteopathic medical students and osteopathic medical education is limited and inadequate in view of the accelerated growth of osteopathic medical colleges. Studies that have been done treat osteopathic medical students as a national population and fail to specifically examine the population of osteopathic medical students at osteopathic medical colleges that are affiliated with public universities.

Further, research on professional education indicates that although multiple criteria definitions of what constitutes a profession have been developed, these do not easily translate into components of a professional education program. Particular problem areas in professional education relate to maintaining an appropriate balance between theoretical knowledge and practical skills. The concept of "perspectives" has been used in an earlier study which examined medical students and provides an example of a research approach that probes and analyzes the emergent views of medical students about their profession and their goals within it.

A discussion of the pertinent changes in medical school curricula reviewed: (1) the accelerated medical program, (2) the development of integrated courses, and (3) the inclusion of social sciences into the basic curricula. Several of these changes have been based on untested assumptions which supports the need for problem-oriented research that would provide some kind of framework in which informed change could result.

Finally, the lack of systematic program research concerning the professional training of osteopathic medical students generates the need for the present study. Therefore, the purpose of the present research is to examine the osteopathic medical training program conducted at a single D.O. college affiliated with a university. This involves several interrelated procedures. Part of the task is to obtain, document, and analyze the views and concerns of a class of clinical clerkship students during the final year of their training about their osteopathic medical education and their profession.

# CHAPTER III

# METHODOLOGY OF THE STUDY

## Introduction

This chapter elaborates on the methodology used in conducting this study. The research population is identified and defined. The data gathering procedures are outlined. The research instruments employed, their administration, and data treatment are explained.

The semi-structured interview format and short questionnaire were developed by the researcher with advice from the dissertation advisor, Dr. Paul L. Dressel and College faculty, administrators, and students. The interview format and questionnaire were unique to this study. In addition, reactions from selected College faculty and administrators were used in verifying the findings and in identifying their response relative to curricular implications.

## Selection of the Population

The main population for this study consisted of the members of the August 1975 graduating class who had completed the first two years of training at MSU-COM, and were at least six months into their third year at the time of their interview. This population included sixty-four persons, fifty-two males and twelve females, which is more than double the enrollment of the 1974 graduating class of twenty-four students. One female transfer student who was not included in this study was a member of the August 1975 graduating class. In addition six

students were included in the interview population: 2 deceased students who would have graduated in August and 4 out-of-phase students.

## Procedures

The implementation of this study involved several interrelated procedures which were divided into two phases with several sub-tasks. Phase I consisted of four parts. Part 1 involved the introduction of the project to College faculty and students. Part 2 was the completion of a tape recorded personal interview of clinical clerkship students. Part 3 (administered with Part 2) involved the completion of a short background questionnaire. Part 4 related to compilation of data already collected by the College regarding student background characteristics. Phase II consisted of developing a definitional statement about the College based on data collected in Phase I, submitting this to College faculty and administrators for verification of some of the findings, and identifying the reactions of selected MSU-COM faculty members and administrative officers relative to curricular implications. Identification of faculty reactions was done via personal interviews.

### Part 1: Introduce Project to College Faculty and Students

The involvement of College faculty and students was considered important. First, the College faculty were the individuals directly affected by the research findings and selected faculty serving in an advisory capacity were regarded as potential resources. Also faculty were in a unique position to communicate with their colleagues about the research goals. For these reasons, a faculty advisory

committee was created in the initial stages of the research and individual faculty members from the College were appointed to an ad hoc advisory committee by the Dean. For the same reasons, a second advisory committee was developed of second- and third-year students. Meetings of both groups were held separately or jointly as the needs of the project dictated.

## Part 2: The Semi-Structured Interview

The data for the study were obtained by means of a semi-structured personal interview conducted by the researcher in the affiliated osteopathic teaching hospitals or at Clinton Valley Center, a state mental institution. To establish a cooperative relationship with the affiliated hospitals, the Directors of Medical Education at each of the teaching hospitals were sent a letter from the Dean's Office indicating support for the project. Also all clinical clerkship students were sent a letter explaining the general purposes of the study by the College's Office of Student Affairs. In addition, the researcher was assisted by the Executive Secretary for Clinical Affairs who provided clinical clerkship schedules for the students surveyed.

The interview consisted of twelve main items. (See Appendix I) The semi-structured interview approach was used in this study to allow students who had experienced the program to express their range of concerns in an open-ended format.[1]

---

[1]See Raymond L. Gorden, Interviewing: Strategy, Techniques, and Tactics, (Homewood, Illinois: Dorsey Press, 1969).

Items 1-6 provided data regarding the MSU-COM program and followed an adapted use of the critical incident technique.[1] Specifically, items 1 and 2 of the interview provided data on the kinds of critical or significant situations the clerkship student felt were negative in outcome and sought to determine to what these situations could be attributed and ways the situations could have been improved or alleviated.

Items 3 and 4 determined the kinds of critical or significant situations the clerkship student felt were positive experiences and sought to determine to what these situations could be attributed.

Items 5 and 6 determined students' ideas as to how they would like to see the transition from second year to the clerkship year developed and the kinds of advice they would offer the next class for the successful completion of the clerkship year.

Item 7 supplied information about experiences with osteopathic manipulative therapy (OMT) and whether students thought their training was adequate or ways it could be improved.

The next section of the interview shifted to information regarding students' opinions about their profession. Item 8 sought information regarding perceptions of the distinction between osteopathic physicians and allopathic physicians based on their training, and item 9 sought students' opinions as to how they would like the profession to develop as opposed to how they think it will develop.

---

[1] See John C. Flanagan, "The Critical Incident Technique," Psychological Bulletin 51, 4 (July, 1954) pp. 327-358 and Ralph Wagner, "A Study of Critical Requirements for Dentists," University of Pittsburgh Bulletin 46 (1950) pp. 331-339.

Items 10-11 sought information about students' career choice and internship selection, and item 12 provided additional data the student may have wished to discuss either specific to the interview or in general.

The interviews were conducted in the following manner:

1. The population for the study was selected as described in the study.
2. The researcher sent letters to each student approximately two weeks before the interview date notifying the student of the interview arrangements.
3. The researcher notified the Director of Medical Education by phone about the hospital visit and asked for assistance in reserving a private interview room in the hospital.
4. Upon arrival at the affiliated teaching hospital, the researcher paged the three clerkship students and arranged with them the exact interview time.
5. Each interview lasted about sixty minutes and no more than three interviews were conducted on one day.
6. All interviews were tape recorded to have verbatim responses on the open-ended items and to give the researcher the opportunity to observe students' nonverbal responses.

## Part 3: The Survey Questionnaire

The survey questionnaire was developed by the researcher to provide information about student characteristics and to collect data about students' views regarding changes in medicine and medical care. (See Appendix II) For some questionnaire items coded responses were

provided in order to collect comparable data in a uniform manner from each respondent. The open-ended format was employed for the other items.

Items 1 and 2 sought information about previous occupational experience and levels of education. Items 3-6 sought data surrounding selection of the osteopathic profession and a career in the health care field. Items 7-10 provided data regarding application to M.D. or D.O. schools and factors in selection of MSU-COM. Items 11-13 sought data regarding size of community lived in, size of community expected to practice in, and the character of medical practice contemplated.

Item 14 provided data regarding changes in medicine and medical care that students would like to see happen as opposed to what they feel will happen.

The survey questionnaire was administered as follows:

1. The survey questionnaire was distributed to each student after the personal interview.
2. Students completed the questionnaire privately and returned it to the researcher at their convenience.
3. The researcher kept a record of the number of questionnaires returned and a follow-up letter was sent to students who did not initially return their questionnaire. The total number of returned questionnaires was 61.

### Part 4: Additional Student Background Data

Additional information regarding student background characteristics was obtained for use in this study from materials already collected by the College's Office of Student Affairs or published by the

University's Department of Information Services. This data pertained to students' marital status, age, sex, and the name of the institution from which the undergraduate degree had been received.

## Phase II: Selected Faculty Reactions

Based on student responses a statement about the College program was developed by the researcher and submitted to College faculty and administrators for verification of the findings and to identify their reactions relative to curricular implications. Faculty and administrator feedback were obtained via personal interviews which were conducted as follows:

1. All faculty members were given an interim report of the data collected in Parts 1-3 of the study.
2. The Chairmen of departments solely administered by the College which are Biomechanics, Community Medicine, Family Medicine, and Osteopathic Medicine, were interviewed.
3. Selected administrative officers were interviewed including the Dean, the Associate Dean, the Assistant Dean for Planning, the Assistant Dean for Educational Resources, the Assistant Dean for Student Affairs, the Director of Admissions, and the Assistant to the Dean.
4. All faculty members representing the advisory committee to the research project were interviewed.
5. The researcher kept a written record of the respondents' comments. The total number of these interviews was 14.

## Method of Reporting Results

The information recorded for each student interview was abstracted by either reading a typed transcription or by listening to the taped interview. A partly coded/partly open-ended form was developed from several interviews by the researcher to use as a structure for summarizing remarks. Detailed comments judged to be significant or particularly succinct statements of viewpoints expressed by other students were noted for further documentation. When this occurred in the case of the non-transcribed interviews, the entire comment was hand-transcribed. This process provided the researcher with documentation by topic of students' in-depth comments substantiated with verbatim student quotes.

The analysis of the interview results was reported in the form of summaries arranged by topic. Direct quotations from students which were edited for grammatical correctness have been employed throughout.

The information collected via the survey questionnaire was hand-tabulated. The results for each question were reported in table form in Appendix II and in summary form in Section 1, Chapter IV.

The students' marital status and age collected in Part 3 were calculated at the time of graduation. The institution from which the undergraduate degree was received was classified as public or private according to the Health, Education and Welfare, Higher Education Directory, 1973-4, from the U.S. Government Printing Office. The results of data obtained in Part 3 were reported in frequency table form in Appendix II and in summary form in Section 1, Chapter IV.

MSU-COM faculty and administrative officer feedback were recorded in summary form in Chapter V, implications of the research.

## Summary

This chapter offered a description of the methodology involved in conducting the study.

The main research population consisted of members of the class of August 1975 who had completed their first two years of training at MSU-COM which included sixty-four students.

The semi-structured interview format and survey questionnaire were developed by the researcher with the assistance of the dissertation advisor, Dr. Paul L. Dressel, osteopathic medical faculty, students, and Directors of Medical Education at the affiliated teaching hospitals.

The purpose of the interview was to provide in-depth data about the views and concerns of osteopathic medical students about their professional training program and the future of their profession. The survey questionnaire was to provide information regarding students' background characteristics and data about students' views on changes in medicine and medical care. Additional data regarding student background characteristics was obtained from the College and from the University's Department of Information Services, and was hand-tabulated. These data were the basis for developing a definitional statement about the College program which was later submitted to College faculty and administrators for verification of the findings. The reactions of selected MSU-COM faculty members and administrators to student-related data were identified relative to curricular implications by means of personal interviews.

# CHAPTER IV

# PRESENTATION AND ANALYSIS OF DATA

## Introduction

The purpose of this study was to evaluate a professional program leading to the Doctor of Osteopathy degree using several interrelated procedures. Part of the task was to obtain, document, and analyze the views and concerns of a class of MSU-COM students near the end of their training about the cumulative impact of their osteopathic medical education and about their profession. This study identified their views and concerns by means of a tape recorded semi-structured personal interview and by a survey questionnaire. Additional information about background characteristics of the research population was obtained from material already compiled by the College's Office of Student Affairs and from material published by the University's Department of Information Services. The research data were analyzed for patterns of response and range of comments. Based on student responses, a definitional statement about the osteopathic medical program was developed and submitted to MSU-COM faculty and administrators for review and feedback. The present chapter is organized by topic as follows:

Section 1: The MSU-COM August 1975 Graduating Class:
A Student Profile
Summary

## Section 1: The MSU-COM August 1975 Graduating Class: A Student Profile

### Introduction

Section 1 includes an analysis of the survey questionnaire data obtained from 61 students who completed and returned a questionnaire; data obtained from the College or published by the University's Department of Information Services; and interview data regarding career aspirations.

### A Student Profile

The following student profile has been developed specifically from questionnaire items where a majority or near majority response was indicated. (See Appendix II.) It is provided as an illustration of those characteristics which were average or typical of the MSU-COM August 1975 class and those students who participated in the research study. While a single student may not share all these characteristics, a majority of students would most likely share a majority of these traits.

The MSU-COM student was most likely: a Michigan resident, a white single male, and 27 years old at the time he graduated. He has

had work experience that can be categorized "unskilled labor" and "research or technical work," e.g., lab technician, biologist, engineer, technical aide, research assistant, et cetera, prior to entry into the osteopathic medical school. In terms of previous college level training, he held either a biology or zoology undergraduate degree earned at a public institution. He was competing with eighteen classmates who had at least a masters degree and four students who had a Ph.D. degree in a natural science discipline.[1]

Most likely he did not learn about the osteopathic profession during childhood or teenage years but just recently came to know about the profession from either a personal or family friend. His immediate family was not in the osteopathic or allopathic medical profession or other health related fields. Thus, he represented the first member of his family to begin a career in a health care profession.

In his aspirations to become a doctor, the mythical average student applied to at least one or more M.D. institutions, and was not admitted. He also applied to other D.O. schools. It was most probable that he was not granted admission at another D.O. college other than MSU-COM. When listing other D.O. colleges applied to, he most likely listed the Chicago College of Osteopathic Medicine. Choosing a college located in the Great Lakes region is a pattern of response consistent with data collected in other sections of the questionnaire. It was noteworthy that a majority of those who applied to other D.O. colleges did

---

[1] MSU-COM has a faculty development program in which it recruits individuals with Ph.D. degrees. Two persons holding Ph.D. degrees in the August 1975 class were participants in the MSU-COM faculty development program.

not apply to the Des Moines College of Osteopathic Medicine and Surgery, although it is the other three-year D.O. program.

When asked why he selected MSU-COM, his responses fell into the category: Michigan: location/convenience; and some aspect of MSU-COM program features. Although he had spent most of his life in a city of 150,000 or more (metropolis), there was no consensus as to where he would like to practice. While he may have listed a small city between 10,000-49,000 in size (32.1%) an equal number of his other classmates would choose either a medium city or metropolis (19.6%).[1] He most frequently indicated that he plans to establish a partnership practice.

Women and Minorities

Over a period of five years, 1971-1975, MSU-COM has steadily increased its enrollment of women and racial/ethnic minority groups. (See Table 1).[2]

---

[1] Of the sixty-one students responding to the questionnaire, four were undecided as to the type of community in which they expected to practice medicine. Thus, percentage figures here are based on a total of fifty-seven students, those who had made a decision on this question. (See Appendix II, page 126.)

[2] Racial/ethnic minority is defined as male/female students who are members of the following racial ethnic groups: Black, Chicano, Puerto Rican, Native American, and Asian American.

Table 1. Minority and Women Enrollment/Graduation Patterns: 1971-1975

| Entered Program: | Women: | Minorities: | | | Graduated: | Women: | Minorities: | | |
|---|---|---|---|---|---|---|---|---|---|
| | | M | F | T | | | M | F | T |
| 1971 | 4 | 2 | 0 | 2 | 1974 | 3 | 0 | 0 | 0 |
| 1972 | 12 | 4 | 2 | 6 | 1975 | 12* | 4 | 1 | 5** |
| 1973 | 19 | 6 | 2 | 8 | 1976 | | | | |
| 1974 | 25 | 14 | 7 | 21 | 1977 | | | | |
| 1975 | 26 | 12 | 8 | 20 | 1978 | | | | |

The following summary picture is a highlight of questionnaire items receiving a majority response from ten or 91% of the female students who graduated in 1975 and participated in the study.[1] The female student was a white Michigan resident, unmarried and 28 years old at the time of graduation. She most likely had experience in helping activities, teaching, and dealing with the public prior to entry into osteopathic medical school. She was an undergraduate biology major. Four of her other female classmates had received advanced training holding masters degrees in a natural science related discipline. In contrast to the majority of the class who first learned of the profession recently, she most likely learned of the osteopathic profession in early childhood years. When specifically asked for those who influenced her into the osteopathic medical profession, there was an equal range of responses

---

[1]Not included in the sample are: one deceased student, one student who did not return a questionnaire, and one transfer student deleted from the survey questionnaire research population.

*The figure "12" represents a different population of females than the twelve who entered in 1972. Of the 12 women who entered in 1972, two women did not graduate in 1975: one is a deceased student and one is out-of-phase and is expected to graduate in 1976. The two additional women in the 1975 program are: one student who is out-of-phase and entered in 1971 and one transfer student who entered MSU-COM in 1974.

**The number "5" includes one minority student who entered in 1971.

in the categories: family friend, personal friend, or osteopathic physician. Like male classmates, she represented the first of her family to become a D.O. physician. However, in contrast to male classmates, she was not the first member of her family to begin a career in a health care field. Female students listed members of the immediate family who were: M.D. doctor (1), nurses (2), dentists (2), pharmacist (1), and podiatrist (1).

Like her other classmates, she applied to three or more M.D. schools, but 36% of her female classmates chose not to apply to any M.D. schools. Although she applied to M.D. or other D.O. institutions or both, she was not granted admission to either.

When listing factors important in selecting MSU-COM, she most probably listed Michigan: location/convenience; MSU: affiliation with large university; and/or financial: tuition and scholarships. She contemplated a practice that is characterized as "private groups." None of the female classmates were contemplating an individual practice, whereas thirteen or 25% of the males contemplated individual practices. Private practice was regarded as a difficult thing to do for male and female students alike. Although some said they wished to enter into practice for the advantages of autonomy and independence, many students admitted they had financial reasons for starting a private practice immediately after internship.

There was an extreme range of responses regarding the size of community in which a majority of the female students had spent most of their lives. The female student had lived most of her life in either a metropolis (40% response) or a rural area (40% response) but she expected to practice medicine in either a small or medium size city.

The population of racial/ethnic minority students in the August 1975 graduating class consisted of 5 Black students, 4 males and 1 female. The following is a description of their background characteristics. A summary profile has not been developed as this would result in diminishing the actual heterogeneity of the small population involved. One male individual completed the MSU-COM program in four years having entered MSU-COM in 1971 in contrast to the other 3 males and 1 female who entered in 1972 and who graduated in-phase. With regard to age, none of the minority students were of the average age of their classmates. Four of the minority students were at least 3 or more years older than the rest of their classmates. Specifically, one student was over 40 years old; 3 students were in their early 30's; and 1 male student was 2 years younger than the typical MSU-COM August 1975 graduate. The marital status of this population was as follows: 3 single students and 2 married students. With regard to career choice, 3 students were undecided; 1 student indicated a general practice career; and 1 student indicated a general practice career with intentions of taking a residency later. Three of the students had plans of practicing out-of-state and two students intended to remain in Michigan. There appeared to be no pattern of response for the character of medical practice contemplated: 2 planned individual practices, 1 a private group, and 1 was undecided. In terms of where they had spent most of their lives, one had a rural background, 2 were from a large city, and 2 were from a metropolis. Regarding where they expected to practice 2 indicated a medium sized city, 3 a metropolis.

Career Choice

Information about students' professional goals was obtained during the semi-structured interview with each member of the August 1975 class (N=64). MSU-COM students were asked the question: "What are your career plans?" followed by "How did you make this decision?" and "Does the College's program encourage this decision?" This summary about students' career choice is not intended to typify the reaction of the MSU-COM graduate, but represents the range of comments received.

Group A: General Practice

Within the population of students who indicated they contemplated a general practice, there are four sub-groups of students. Group A is composed of twenty-five individuals (39% of the class) who had very definite future career plans of starting a general practice immediately after their internship year. For many, this career choice was known to them when they applied to MSU-COM. During their training years they began to establish contacts with doctors with whom they expected to practice and they knew the communities in which they would settle. The factors influencing them in their career choice most frequently mentioned were: (1) the enjoyment of a variety of medicine, (2) a personality disposition that does not require knowing all one can about a subject, and (3) the satisfaction that one is selecting a career that meets the most pressing health care needs of society.

Group B: General Practice/Will Seek More Clinical Training in GP Field

This group of students although small (5 students or 8% of the class) is particularly significant with regard to the three-year vs. four-year program issue. These students felt the untoward effects of a

three-year program in that they did not yet feel they had the clinical competency or personal confidence to begin a general practice after their internship.

For example, one student of the five expected one more clinical year would be sufficient. The MSU-COM student said:

> "I'll probably go into general practice but I'd like to do something for the year after internship just to get some more training..."

Other students said they were thinking of taking a family practice residency. This student's comments illustrate the point:

> "I don't know if I'll be confident enough after next year's internship to go out and practice. I might look for a family residency somewhere. Wayne State has one. With so many medical procedures, you need a residency program to have more confidence and more skills. I've seen some general practitioners that are not that good as physicians. They are there for the money and don't have quality care for patients. A family residency program might help you."

Group C: General Practice/Will Seek Residency Later

Group C is composed of four students or 6% of the class. These students expressed a variety of reasons for wanting to practice after internship but were planning to seek a residency later. Most students mentioned they needed time to decide their specialty interests. This student's comments represented this point of view:

> "At this stage I'm tired of school. I want to get out and get into a general practice where I can tell what I want. I would hate to start a medicine residency and then six months later realize I really don't enjoy it. Right now I'm ambivalent. General practice is interesting. My career plans change from service to service. I like OB, pediatrics, and medicine. If you like everything, it's good to stay in general practice. You can make general practice as interesting as you want. The College exposes us to a wide variety of areas and does an adequate job of giving us exposure to specialties and sub-specialties."

A few students in this group indicated they had financial reasons for selecting general practice. They said they had to work to start paying for their medical education expenses. A few in this group also admitted they wanted to establish a practice because they had always been a student; were tired of being a student with no breaks; and were not yet ready to take a lengthy residency program.

Group D: General Practice/Residency Field Known

This group of students is composed of six people or 9% of the class and is very similar to Group C in that they expected to become specialists in the future. They are different from Group C in that they were certain about their specialty field such as internal medicine, OB-GYN, and Emergency Room practice within a D.O. hospital. Although they were seriously considering a general practice career after internship, they had already explored hospital residency programs and had received informal assurances of placement in a program, but would be more certain of their plans after internship. Reasons for selecting a general practice career "for a few years" were the same as for Group C with the exception that they did not list "time to determine their specialty interests."

Specialization

Students who expected to enter a specialty field indicated the following medical careers: internal medicine (4), hematology (1), neurology (1), OB-GYN (1), orthopedics (2), pediatrics (1), psychiatry (1), and public health (1). These students said they had developed interests in the respective fields and recognized their individual personalities required knowing as much as one could about a subject. A few students

mentioned they felt they had benefitted by experiencing a medical program oriented to general practice. Only one individual was critical of students who wanted to be general practitioners.

Undecided and Research/Teaching Career Choices

Sixteen percent of the class or 10 students were undecided about their career choice. A majority of these students affirmed that they had definite plans of entering a specialty career but felt they would need their internship year to know what interests them most. Also, a majority of the students who were undecided about their career choice were female. Three percent or two members of the class plan research/teaching careers and held Ph.D. degrees.

With regard to deciding their career choice, students indicated the College program encouraged the general practice orientation. Students who were unsure of their career interests said they decided their professional goals by first ruling out which medical fields they did not want. The following student quote illustrates how some students decide their role in medicine.

> Interviewer: "Have you decided what you're going to go into in terms of your career choice?"
>
> Student: "[I've decided] several times and I've changed my mind every time. Going through school I was sure I was going to be a neurologist, and coming in here I was sure I was going to go into internal medicine and I have thought about this and that and the other thing. Now that I've completed a general practice service I really feel strongly about general practice too. I would say if I had to narrow it down to anything, it would be general practice or internal medicine because they vary in the acuteness of the situation. I can't see myself getting tied down to anything as narrow as surgery, radiology, or anesthesiology or something where you really do the same things... and nothing changes. At least in general practice, even though it might not be really academic acute practice, your practice

> is what you make it. If you look for things you're going to find them and you've got just a variety of different cases and contact with people. It's primary care and internal medicine runs along the same lines. You're not narrowed down to any one system; you treat neurologic problems, cardiac problems, respiratory and gastrointestinal... Internal medicine is kind of a specialized general practice."

## Summary

Background characteristics of the students in the August 1975 graduating class are useful when analyzed for patterns of response. In Section 1 data were presented and analyzed regarding: (1) the typical or average MSU-COM member of this class, (2) women and minorities, (3) students' career aspirations, and (4) how students decided their career goals. The data indicated that MSU-COM is admitting its largest group of students from a population of applicants who are newcomers to the osteopathic profession and to the health care field. With regard to the geographical sources of students, 26 members of the August 1975 class come from a city of 150,000 but the largest group of students indicated a preference to practice in a city of 10,000 to 49,000. With regard to career plans, 62% planned a family practice career, 16% were undecided, 19% expected to enter a specialty, and 3% planned research/teaching careers. A majority of students indicated a preference to establish a group or partnership practice and 25% of the students expected to establish individual practices. No females indicated a preference for an individual practice. In deciding their career choice, students who were undecided as to career interest first tried to rule out which medical fields they did not want.

## Section 2: Clinical Clerkship Experience

### Introduction

In Section 2 clinical clerkship students' feedback about the third and final year of training are presented. Verbatim student quotes which have been edited for grammatical correctness are used to substantiate issues and further describe problem areas. In particular, students have indicated areas of concern which relate to the need for support services for the third year.

### Clinical Clerkship Support Services Needed

#### Orientation to Clinical Clerkship Year

Clerkship students' feedback about the transition from the second to the third year indicates there is a particular problem here. The physical remoteness of the College from the teaching hospitals separates the didactics from the clinical aspects. Students, even those with previous hospital work experience, have said that there is a great deal of concern about their proper hospital role. Quite a bit of students' time and emotions were spent attending to these concerns in the initial phase of the clerkship year and at the start of each service. This poses a particular problem for students on shorter services. Students were not saying that they expected to have all their anxieties relieved. Students realized the first time they did an IV injection, put in a catheter, or did any new clinical procedure there would be anxiety about role performance. Rather, students indicated that on some of these issues there should be some discussion and advice presented to guide the student in sorting out the natural feelings of incompetence and self-doubt. When asked how the situation could be improved,

students suggested that a general clinical clerkship orientation meeting be held before the third year and at each hospital at the start of each service. For example, one third year student said:

> "I was very ill at ease my first month here, very ill at ease. It didn't stem from any specific thing that I blundered doing or from any questions that I couldn't answer. It was just a very new thing to me and I wasn't at all sure as to what I was supposed to be doing. What should I know, what shouldn't I know, what should I be competent at, what shouldn't I be competent at, what should I be embarrassed about--I had no idea. So I spent my first month trying to learn everything there was to know because I didn't have too many classmates with me--very few other externs chose this as a major center. So I was from the classroom and being surrounded by residents and interns and they seemed to know an awful lot more than I did. I wasn't sure if that much of a gap should have been there, so I just went wild the first month I was here. I practically cleared out their library and really didn't do anything for a month. I just sort of ran myself out. I didn't know what to expect at all and there didn't seem to be anyone around who knew where I was at to kind of direct me. I don't think it was anything I didn't learn the first two years, judging myself against other students, but I think what would have helped would have been somebody sitting down with us and saying, "Look, you're going to be going to the hospital and it's going to be really different and this is what you're expected to know, and this is where we think you should be.' I didn't have that direction."

Another student indicated:

> "I think if you want to help some of the second year students a good idea would be to have some kind of class meeting with a few of the people from the third year class. I know when I went into my third year I had a lot of anxieties as to what was expected of me and what would happen in different rotations. If you could have someone to talk with who has just gone through it, I'm sure that would help a lot. Because you really don't have the communication except maybe with one or two of your close friends that are in the class behind you. It just sort of filters down by word of mouth. Who knows what it ends up as? It might be a helpful thing... if nothing else, just to relieve anxiety. It isn't going to be as bad as you think, or don't think you're that ill-prepared, or something like that. Confidence is 90% of it, I found, 10% ability."

Several students said there should be information about hospital routine and different hospital requirements. This student's comments, for example, describe the situation expressed by many other students:

> "For the longest time you don't really know what the hospital expects of you as a clerk--every hospital expects different things. In fact, the first day I was here I didn't even know there was such a thing as History and Physical list that I was going to be assigned. I was on my way out until somebody told me, 'Well, you have four H & P's to do because you're assigned.' And I said, "Nobody even bothered to tell me.' So it's really a sink or swim type of thing. In a matter of a few days you fall in step but I think things could have been much easier if the secretary, or anybody who is familiar with hospital routine, could have sat down with the clinical clerks and said...maybe it would take about an hour to explain a little bit about the hospital, a little bit about the hospital routine, and a little bit about what was expected of the clerks at this hospital. So I think that is a just criticism."

The nature of the clerkship orientation meeting is twofold: to increase formal communication about formal standards of performance and to increase informal conversation about the successes and frustrations which are natural events for the clinical osteopathic medical student. Students who completed the clerkship year felt they were in a resourceful position to develop the specific orientation meeting agenda. Several of the third year students interviewed volunteered to speak with second year students about the clerkship year.

## More Communication

In addition to an orientation meeting at the start of the clerkship year and at the start of each service, students would like to have regular communication with the College during the third year. Many students were annoyed that they had never seen anyone from the College since they began the third year. Generally, they would like to know the

College is interested in their personal and professional development and regarded more communication as an effort to achieve this goal. Information should come directly from College administrators rather than via student representatives, i.e. information about graduation and about the College policy if the hospital should go on strike. Others wished there were at least a direct telephone line to MSU-COM for student purposes. Students indicated all long distance calls to campus were made at their own expense. Several students felt there should be a full-time coordinator of the clerkship year from the College in the Detroit area. Students at Bi-County, where a large proportion of the class was located, especially gave this as their recommendation. The situation at Bi-County is unique in that the Director of Medical Education's office is not within the hospital but is at Detroit Osteopathic Hospital.

Standardize Clinical Clerkship Experiences

Students have described their training with such words as "serendipity," "luck," and "chance." Yet students felt the need to have a rigorous clinical year to compensate for the accelerated three-year program and what students viewed as a weak clinical exposure. Several students expressed the opinion that they did not know what level of competency they should have had when they began or completed a service. They had definite opinions that the third year should be more instructionally organized.

One suggestion to improve the clerkship experience obtained from student interviews was to have a formal introduction at the start of each service to tell the student the basic skills he/she ought to

acquire and at what level of competency they should be when finished. With regard to this issue one student said:

> "... It was very hectic and the one thing I really resented was that there is no orientation to these rotations. You don't know what you're expected to do. You don't even know if you're expected to handle codes or what your responsibilities are. The first four months were just... I mean I was getting systemic signs of nervous fatigue because I didn't know if this guy goes into respiratory arrest, should I take care of him? How responsible am I for that? What am I supposed to do? No one tells you. The most direction I've had as far as overall view as to where I should be in my medical education at this time has been from a book. It's a book I found called The Clinical Apprentice and it's the only book I've ever heard of that's written for externs. It tells you what you should know, what you shouldn't know. Clinicians will tell you, 'Listen, just stick to the basics,' and three seconds later they'll ask you about Osgood-Schlatter disease. Wow, I had that in my class a year and a half ago for two minutes. Then you go home because you're paranoid. You want to know what this Osgood-Schlatter disease is and you spend your entire eight weeks or a good part of it looking up trivia which you're going to forget and you don't have time to actually look up the basics because either they're asking and popping these little questions out at you and they're evaluating you not on your basics but on your frugal performance on the spot, and that's difficult. That goes with all services. It doesn't just go with internal medicine. Pediatrics is very good in that they have a video tape presentation in one area of pediatrics and it's basic stuff. I've only been on pediatrics two days and I'm spending most of my time downstairs in the library picking up on this video tape. It's almost fun just to sit there and have someone tell you something basic that you're going to have to know how to actually handle. I can understand their reasons for not going over basics. Either one, they think we know it already, or two, they don't want to embarrass themselves by teaching us something that we already know."

## Clinical Clerkship Evaluation Concerns

The College's present policy is to require the student to have his/her clinical instructor complete the College's evaluation form. The evaluation form is then mailed directly to the College by the supervising

physician and is used to determine whether a student receives an "N" or "P" grade for the quarter. To be able to read a copy of the formal evaluation, students must drive to MSU-COM.

The evaluation of clinical clerkship students' performance is another aspect of the third year program which requires further study by the College. Students seriously questioned the present clinical clerkship evaluation policy. Students wanted systematic and formative feedback about their performance, especially on the longer services and before the service was finished. With regard to the formal evaluation policy, students suggested it be mandatory for each student to receive a copy of his/her performance evaluation.

Although feedback on student performance from supervising physicians varies by hospital and by physician, students indicated it was most often "indirectly" received. Students stated clinical instructors were too busy to provide verbal feedback unless required to do so. The following quote further describes these evaluation concerns.

> One student said:
> "For the major services, there are ten or twelve pages where the clinician has to rate the student. It's much better if the clinician, the resident, the intern, and the student sit down together and do the rating and say, 'Here you were good and here you did this, or you didn't do this, or you need more on this...' instead of having the clinician, the resident, and the intern sit down and fill out that stupid form. The student is the one that needs to know what things he's got to do better directly from them, not from a piece of paper that gave him a "1" on use of equipment."
>
> Another student said:
> "It should be mandatory. I think students should get an extra copy of their evaluations at the same time. If you have something good to say about somebody and if you have something bad that's probably equally as constructive, ... I want to know how I'm evaluated. It scares me a

> little bit that it's so secretive. There's something demeaning about that and it makes the College less respected by me. If these evaluations are important, why doesn't the student have to see them?"
>
> With regard to the evaluation forms one student said: "I'll give you one thing that I'd like you to take back to the faculty. There's too much paperwork. The books that we have to fill out, the log books and the clinical assessment forms that the instructor has to fill out on each student are too much. The instructors don't like it, the students don't like it, and hopefully these forms can be cut down. I don't know if they're getting all they want out of it but I hope that the forms can be constructed so that they'll be less paperwork. If you're on his service for any length of time, a physician can tell if you have performed satisfactorily... The form for the evaluating physician should be cut down to 'satisfactory' or 'unsatisfactory,' a line for attendance, a few lines for plaudits and criticism, and I think that is sufficient."

To reiterate, how can communication about students' clinical performance be developed? Is the present policy of requiring students to travel to MSU-COM to read a copy of the evaluation defensible? What limitations on student evaluations exist for the College?

Log Book Concerns

When students bring up the topic of "log books" their main complaints were: (1) they are too cumbersome; (2) they don't relate to the hospital experience; and (3) they cannot and are not able to fill them out accurately.

> One student said:
> "The log books don't relate... Someone looked up all clinical procedures possible and made a list. We don't see many of those... The hospitals could care less about the College and what the College expects us to get. The College couldn't exist at this stage and we would still get along."

Another student said:
"From the student's standpoint, we work twelve hours a day. We're busy. No, I can't keep track of every time I start an IV, every time I do this procedure, every time I do that procedure. It's not enough for us to check it off. We have to say we've done something. Not only countdowns, how many times we've observed, how many times we've discussed, how many we've assisted on, how many we've actually performed ourselves. Now instead of saying for one service that I started five IV's, I have to keep track of how many times I saw an IV started, how many times I discussed IV therapy, how many times I helped the nurse. You would be walking around literally all day with pencil and paper and never do anything... If there is anything constructive that I can add on that note I think that's something you'll hear from other students, if you haven't already... If you look through some of those and really thought about it and ask some of the students, then you'll see that they say they can't fill it out. It's impossible. They just say, 'Well, I did six of these, and twelve of these...' "

MSU-COM Rapport with Clinical Faculty

Several students recommended more communication between the College and their clinical instructors. At the least, serious discussion should be initiated on this matter. As clinical clerks from MSU-COM, students received unsolicited complaints about the College. The following interview excerpt highlights what some clerkship students expressed on this issue.

Student: "The physicians have always treated us well as far as in a public type setting. When we're alone or when they first meet us there is always that poke in the ribs about being from Michigan State and that kind of thing."

Interviewer: "Is that unique to this hospital, or is that at Bi-County too?"

Student: "I think that it's just about any hospital. It's a three-year program. They give it to you for that. Any simple clinical exposures that you haven't had, you might get ribbed for that, or previous students that have gone before you and the bloopers they've made... some of them

> are bitter towards the school in that they weren't given clinical instructor ratings or they wrote letters for people to get into school and they don't know anything about the admissions policies. They keep asking us, 'What do you have to be to get somebody into this school?' and there is a lot of resentment there. We're put on the defensive right away. We have to defend our school. I've had physicians come up to me and say, 'I've written twenty-five letters for people to get into your school. Not one of them has gotten in but they've gotten into Kirksville or some other place'... It's more the three-year program than anything else and I don't know if they just haven't heard about the pass/no grade type system or that they don't think it's that important. There are a lot of conservatives, not quite as many liberals. They all went through the traditional type education. They had their four years and why shouldn't you? Or how can you possibly learn in three years what I learned in four? In some ways you feel like they're looking down at you a little bit."

Several students also expressed a concern about the variability in the quality of the clinical instructors. They urged more participation by the College in the development of clinical faculty's teaching skills.

> One student said:
> "Some people [the physicians] we work with aren't used to having students here in learning roles. If you don't push them they're inclined to just let you tag along and not do much. If you're aggressive enough and you want to take responsibility, they will let you do stuff. The way they have it set up here is you go four weeks with one physician--the first one was an excellent teacher but he was very involved with community affairs and very busy, and he told us, 'Some days I'm going to come in and have just enough time to see the patients in a hurry, leave, and I won't have time for you. When I do have time for you, okay.' So there were several days when we learned an awful lot from him because he's a good teacher, but there were some days when we didn't see him at all. I learned a lot from him but on the whole it wasn't an ideal teaching situation. I don't know what you would do to change that but that's what happened. The physician down there now is there almost every day but he isn't

willing to answer any questions let alone let you take any responsibility. So it varies. It might be advisable for the school to communicate with them (supervising physicians) to let them know we're being sent here to learn things and become proficient at procedures."

Another third year student said:
Student: "You know what turns you off faster than anything else? You can tell immediately when a doctor doesn't want to teach and then you know it's just a cat and mouse game. You just follow him around and just look at the charts and he'll throw them in a basket and won't say a word. And that happens. That happens quite frequently."

Interviewer: "What is the role of the extern in that case?"

Student: "Nothing. I just keep my mouth shut and follow him, because some doctors don't like to answer questions. They just want to get through as fast as possible. If I had any complaint to rate number one, it would be that--these kinds that forget that they were once students and that they should teach too. I think a lot of them just feel the externs are a pain in the ass."

Students who knew that most of their clinical instructors were unpaid volunteers expressed the opinion that their clinical faculty should be financially remunerated. If the clinical faculty were rewarded by the College, students felt the quality of instruction would improve. At the same time, the College could begin to require clinical faculty to know more about the MSU-COM curriculum and the basic skills MSU-COM students should be taught. Students complained that although they paid tuition and paid for their third year training, they were expected to be grateful and appreciative for the time spent by clinical faculty, residents, and interns.

Regarding Rotations

MSU-COM students offered comments and complaints about specific hospital rotations. Remarks most frequently mentioned about certain services are summarized. In general, students would like to be assigned to a resident when the supervising faculty member is not in the hospital, and would like to have teaching rounds. Several students would like to have time for reading during the day.

Medicine

Pertaining to medicine, the main concern was the number of Histories and Physicals students did and the lack of direction in the extent of patient treatment for which students were responsible.

Surgery

There were some complaints about surgery that are unique to surgery. Students commented that they expected more training in pre- and post-operative care. Is there any way to develop more pre- and post-operative surgical experiences? Is there a way to develop teaching rounds?

Obstetrics and Gynecology

The major concern about OB-GYN service was the little or no gynecological experience. Male students who expected to enter general practice after the internship year indicated emphatically they did not compensate for this GYN teaching deficiency in their junior partnership rotation because the majority of patients who were GYN cases did not want a student physician examining them. Students hoped the College would explore the possibilities of developing more GYN experiences.

Otorhinolaryngology (ENT) and Ophthalmology

Students valued their ENT experiences but complained that a one week service was just not enough time. The main concern was that as general practitioners they should have more exposure to ENT. Those who offered commentary about ophthalmology felt it should be an elective.[1]

Anesthesiology

No major complaints were offered about this service. A minor concern was the lack of supervision when a clinician walks out of the surgery suite and expects the student to handle the patient's needs.

Pediatrics

Students were concerned that D.O. teaching hospitals in Detroit have low patient census. (See Section 6, "Clinical Rotations for D.O. Students in M.D. Hospitals".)

Junior Partnership

The main concern was that the quality of approved MSU-COM general practitioners had not been refined. It was hoped the College would continue to evaluate the junior partnership physician list. For example, one student said:

> "I was in general practice with this man. He practices a high volume... everyone gets vitamin shots, hormone shots, and Medicaid gets ripped off. And that's where you see in the Detroit Free Press about osteopaths doing that... It's how not to run a general practice."

---

[1] The College has since changed ophthalmology to an elective. ENT is now a two week service.

Psychiatry

The main concern about the psychiatry rotation at Clinton Valley Center was that the four weeks spent at the Center with one day at Beaumont with out-patient care was an inadequate exposure in terms of out-patient care. Students overwhelmingly agreed that as future general practitioners, they would have liked more experience in treating acute cases. Students invariably stated they benefitted more from the cumulative four days spent at Beaumont than they benefitted from the experiences at Clinton Valley Center. In terms of their didactic program, students indicated this material should be introduced in the Unit I and Unit II portion of their curriculum. Many students felt they were weak in psychiatry didactics because their psychiatry training in the first two years was poor. Students who had psychiatry in Traverse City felt this service was not well coordinated by the College.

> For example, one student remarked about the psychiatry at Traverse City:
> "... The problem there was that they didn't have the program set up for us too well. It was good in that we had almost absolute freedom to do whatever we wished, ... pursue whatever we wanted to, explore what areas of psychiatry we felt were relevant to us in the way we would be practicing medicine. But it was still, as far as I'm concerned, sort of unstructured. I don't like a tight structure that much anyway, but this was even a little bit too loose for my liking... When we went up there the teachers and the clinicians at Traverse City expected the people at MSU-COM to have a program devised for us, and the people at MSU-COM expected the teachers and the clinicians at Traverse City to have a program developed for us with which we would work. And as it turned out we used sort of the same kind of program that the M.D. school used because the people at Traverse City were familiar with that sort of format. But the person who ran that format at Traverse City wasn't there at the time we were there, since he was associated with the M.D. school and I believe he was on campus in East Lansing... I enjoyed the experience. I learned a lot... but it was a good service that could have been better."

With regard to psychiatry at Clinton Valley Center, one student said:
"Maybe one place where we were let down would be in community medicine--psychiatry especially. We ran into psychiatry at Pontiac State and it was a bad experience. They had real good lectures and they couldn't really have given us what they had planned because we didn't have any basics. So he had to revert to basic psychiatry for us for the four weeks. When we got out of Pontiac State we knew our psychiatry but then we couldn't apply it because we were done. Another thing about the rotation too, at Pontiac State I just saw chronic type cases that had been there five or six years. I think what would be much more appropriate would be some sort of a setting where you're seeing immediate acute care, acute psychiatric care. We had one day a week that we went to Beaumont Hospital and had some experiences there too. That was, I think, the best."

### Summary

In summary, students have expressed their views and concerns about the third and final year of training. Specifically, students felt more support services were needed for the third year. They suggested the College initiate more communication with the clinical faculty. Students also offered constructive comments about specific rotations, the log books, and the third year evaluation policy which all merit further consideration by the College.

## Section 3: Unit I and Unit II Training

### Introduction

In Section 3, students' comments about Unit I and Unit II training are summarized. Clerkship students had definite opinions about their education and suggested program areas that require attention. Judgment regarding the validity of students' concerns involves other students, faculty, and administrators. To obtain data for this section

clinical clerkship students were asked to think of situations whose outcomes were bothersome and to explain if the College could have done something during the first two years of training which may have improved or alleviated the situations.

Basic Sciences

In general, students had favorable comments about their basic science program. Their concerns were related to the College's newness, faculty teaching abilities, and the difference in achievement expectations and standards set by the College versus the clinical faculty. For example, several students mentioned their anatomy was deficient. Although students realized the anatomy courses have improved, they suggested the College study the advantages and disadvantages of dissections versus prosections.

> For example:
> "I think our anatomy input in the first semester of our freshman year was insufficient. They tried to make up for it by having input in each system. I still prefer the old-fashioned opportunity to dissect tissue [to] learn the feel of tissue, its strength and elasticity, the seeing of different types on the different cadavers... When it comes to being a physician and in surgery you are seeing some of these tissues for the very first time."

Is the students' conception of their anatomy laboratory experiences valid? What does the College define as sufficient anatomy?

> Another student said:
> "... I'm sure you've heard from other people our anatomy was very, very weak. You know, the old joke is... you could have gotten by in our anatomy without ever touching a cadaver, which is a hell of a way to learn anatomy. You don't learn out of books. The basic anatomy was weak."

Many students felt pharmacology or some part of their didactic program should have included lectures about practical aspects such as writing prescriptions and which IV fluids to use and why.

> The following quote summarizes these kinds of concerns:
> "Our class tried to get a little more input and pharmacology had nothing to do with it. They are just teaching the basics--the physiology of the drug, how it's metabolized, what's the active component, things like that. They didn't get into the practical aspects. It wouldn't have taken long to sit down and give us a couple of lectures on quantity you can write of the drug, how do you write dosages... not memorize all the dosages for all the drugs. You can learn it in grains, or you can learn it in milligrams, you can learn it in kilograms, you can learn it in pounds--just the approach to that kind of thing would help."
>
> The same student said:
> "Clinically, I think they [the College] rely pretty heavily on the third year. I don't think they are trying to prepare us for most of the things we are getting right now... I think that's fine as long as the clinical instructors know it, but many of them expect us to know these simple things that we just don't know. Pharmacology especially... We come not knowing how to write a prescription. They [the clinical instructors] will come in here and say, 'Okay, let's give the patient some penicillin.' How do I write it? How much do I give him? The clinical aspect of writing down drams or grams, how many grains in a milligram? This just isn't the kind of thing we learn in school and many of the clinical instructors take it for granted we know things and are surprised when we don't."

How can the College define its standards of didactic achievement? How can these standards be communicated to clinical instructors? To students?

With regard to biochemistry, students who offered critical comments about biochemistry were optimistic their biochemistry didactics would improve given time to develop. Many students felt their psychiatry didactics were very weak and recommended what was taught the third year be taught on campus.

> With regard to psychiatry didactics, one student said:
> "At the end of our first year is when we got our psychiatry lectures. They were just aimed at a

> different goal than what you're taught up at Clinton Valley. [In Community Medicine] we were taught out of a workbook type thing and I just never learned that much in that course. The final exam was taken right from the workbook... When we went into psychiatry at Pontiac they gave us nice formal lectures and they started out with id, ego, superego, and worked up the defense mechanisms--it really made sense."
>
> The same student further recommended:
> "What I think we need in our psychiatry is some sort of training in just dealing with simple mental problems that affect everyone everyday. Just dealing with your job or dealing with growing up, dealing with a pregnancy, all the mental aspects of that. How to sit down and talk to a patient that has had the problems in a more general practitioner's orientation. Because when you're in a general practice these people are going to come in and say, 'I'm really upset, my son won't do this or that.' You have to sit down and talk to them. You pick that up along the road but I think it would be better if we had a more formal maybe 'hot line' or 'the listening ear' type of training or crisis things like that. I think [this could be done] in one term maybe an afternoon a week or something like that. How to talk people out of a depression. In the first two years we were deficient in that type of thing."

Preceptorship Program

A general concern mentioned by students about the preceptorship program was that each student should have been required to rotate with a variety of general practitioners and that more program coordination was needed. Many students, however, had very favorable comments about the value of the preceptorship program.

> One student remarked:
> "I would recommend the school, definitely recommend the school. I do think the clinical exposure is super, super important. Now, we were in doctors' offices for a three week period or something like that. It was immediate and I think that's good. I think that's real good. I know that people are working awful hard to get more physicians in the

> Lansing area that are more easily accessible so that we could have more [exposure]. I think it's really important because it gives a direction and a meaning to a lot of the material presented in a sterile didactic environment."

Systems Courses

Several students recommended more inter-coordination and intra-organization of the systems didactics. Students frequently mentioned their neurology system course was an excellent model in terms of organization, the use of simulated patients, and the use of videotapes. If simulated patients were not available for systems courses, students recommended the use of models such as the sigmoidoscope.

Students appreciated the ability of the systems approach to help them integrate all of the didactic material they must assimilate.

> One student said:
> "I really enjoyed the systems approach rather than going off into the old theoretical type [approach], where you just study OB or microbiology. Using the theoretical approach, you just don't seem to organize it together... I'm finding now that I retained more than I had thought. At least it gave me the background of where it came from. Now when I'm on medicine I particularly appreciate the systems."

Early Clinical Experiences

Students recommended the College examine the merits of sending students to Detroit osteopathic hospitals for afternoon sessions. Students overwhelmingly indicated the afternoon experiences in the Detroit osteopathic teaching hospitals were totally inadequate and recommended either mornings, full days, or one full week at the end of each systems didactics. The major concern was that the driving time was not worth the experience. Frequently there were communication difficulties and

the physicians' schedules were unreliable. Students had strong opinions on this matter because they felt they had so little time in a three-year program to develop clinical skills.

Because of the differences in achievement standards and expectations set by the College versus the clinical faculty, students listed several kinds of clinical skills they would like to have before their third year which are identified accordingly:

1. How to do general sterile procedures; dress for surgery.
2. How to identify the names of surgical equipment.
3. How to cast (the one evening lecture was very valuable).
4. How to do sutures: preliminary skills involved.
5. How to treat a fracture.
6. How to treat a foreign insult to the eye.
7. How to give injections.

To reiterate, how can the College allay students' anxieties about these clinical skills? Are students' concerns valid? Several students recommended that the College study the feasibility of efficiently using afternoons for didactics.

Three-Year Versus Four-Year Program

Students who had strong opinions about the three-year versus four-year program stated the values of a four-year program for the preparation of the general practitioner. Student initiated commentary on the disadvantages of the three-year program included lack of time to integrate knowledge, weakness in clinical skills, and their surface or "notebook" medical knowledge. Several students who espoused the general practice career did not feel they would be competent to start

a general practice after internship and planned to seek additional clinical training. (See Section 1, "Career Choice: General Practitioner".)

> A student commented:
> "I haven't really gotten feedback that I'm inferior to someone in a four-year program but on a four-year program even if you've got summers off, most people do externships. You get a lot of the basic things down, a lot of the procedures down that you don't have time to learn when you get into your clinical year. There's just so much to know that [three years] doesn't seem like enough time."

> Another student spoke candidly of his anxieties:
> "I'd like to put in my viewpoints for a four-year program. I do think that would be better. I think you need at least one or two summers off... just to get away from it. You get more classroom time in a four-year program... A summer off to lay back and do some extra reading. To go over some of your old notes. Time to maybe spend another week or two or three in the anatomy lab if you wanted to... informal elective time. I think this constant stress of being in school all this time with all this knowledge being thrown at you time and time again, you just don't have the time to absorb it that you would on a four-year program... As interns when we first come into the hospital we probably aren't as experienced or proficient as are the interns that come here out of a four-year program. We are probably trained as well at the end of our internship as anyone else... I think the internship acts as the great equalizer. By then I think we're about the same. But I think we are somewhat deficient to start. Some services I have finished like obstetrics, I don't think I know enough obstetrics to even function as well as an intern as I would like to. I imagine when I'm out of surgery here, I don't think I'll feel as comfortable with my surgical knowledge as I would really like to feel by the time I go into my internship. And it makes a difference, you know, because interns at every hospital I know of have always had to cover nights. And you may be the only physician in the hospital and you're stuck with all these different problems."

Students also mentioned the lack of elective time to pursue interests and strengthen weaknesses. The MSU-COM August 1975 graduating class had five weeks of elective time.[1] The long-range concern was that in a rotating internship there is again a limited elective time.

> With regard to the College's clinical elective time, one student said:
> "My classmates who are definitely going into general practice feel the same way. They would like to have a little more elective time. Hematology, for example--you get a brief exposure in the context of your medicine rotation. But that is not enough time to go back and really review that system and learn by repetition."

Several students associated the problem of locating internships that start in September with the three-year program. Some of these students felt a four-year program with graduation in June would be better. A few hoped the College would start school in the summer so students could graduate in June in order to locate internships.

Five out-of-phase students were interviewed whose comments are revelatory with regard to the three-year versus four-year issue. First, they felt personally satisfied with their decision not to complete a three-year program because they (1) needed additional time to integrate their medical knowledge, (2) needed additional elective clinical experiences, and (3) had valuable medical experiences which furthered their medical competencies while "stopping out."

---

[1] The elective time for the graduating class of 1976 has been increased to six weeks. The one week ophthalmology rotation was deleted. ENT was increased to two weeks, while pediatrics service, which had previously been five weeks long, was reduced to four weeks.

Those students who offered commentary about the value of the three-year program felt the internship year would reduce the differences that existed between the three-year and four-year medical graduate.

> One student said:
> "There's one other thing I wondered about and that was the three-year program. Interns aren't one year ahead of me, they're two. I've heard comments. My supervising physician specifically asked me what is the most common something or other. I didn't know the answer and he said, 'That's the three-year program. It didn't give you guys enough time...' And that was my first day with him. And I had doubts about that and after a while I [too] was saying, 'Am I ready? I'm going to be an intern next year.' All I can say is I'm a three-year student and he ended up giving me more responsibility than any of his four-year students. I think we're doing fine."

## Summary

In summary, students had definite opinions and suggestions about the cumulative impact of their osteopathic medical education which need to be validated by other MSU-COM students, faculty, and administrators. The general consensus is that given time, the basic science and systems courses will develop. Several students hoped the College would explore the advantages and disadvantages of the three-year versus four-year program for the preparation of general practitioners. A few students urged the College to consider starting courses in the summer in order to graduate students in June.

## Section 4: OMT Training

### Introduction

Several parts of the MSU-COM college curriculum have undergone an evolutionary development which is the natural process for a new college. The osteopathic manipulative therapy (OMT) courses and content have especially had significant stages of change that are not reflected by examining the College's curriculum schedule.

The OMT program at MSU-COM consists of a sequence of seven consecutive terms starting Winter Term of Unit I with the course Family Medicine (FM):630 for one credit followed by Unit II Spring Term with the course FM:640. This is followed with FM:650, FM:660, FM:670, FM:680, and FM:690, each term respectively. The course is always offered for one credit although it is listed with variable credit and up to a maximum of four credits each term. The course is taught one afternoon a week in a laboratory format. The College's OMT program objective has remained constant: to train students to evaluate, diagnose, and develop multiple approaches for the treatment of patients.

The OMT training for the August 1975 graduating class involved a change of OMT curriculum midstream in the program. As freshmen they had training with the thrust techniques (Unit I). In the second year they had the muscle energy approach (Unit II). This midstream change of curriculum had its ill effects for some students.

### Muscle Energy Versus Thrust Techniques: OMT Training in Transition

Opinions vary on the use of thrust versus muscle energy techniques. Several students indicated they preferred the thrust techniques because you actually heard what was going on.

One student said:
"A lot of OMT I feel is due to the fact that you're putting your hands on the patient and touching him. The patient hears certain things happening, too--it makes him feel better. The last term of OMT using muscle energy went so fast and it was so complicated that a lot of it I just forgot. I probably won't ever use it. The only thing I'll ever use is the first two terms of OMT."

Other students expressed frustration with Unit II, the muscle energy approach:
"There was no scientific evidence for anything ever happening. I don't think there was much scientific evidence of the thrust techniques working, but at least I was able to accept it more readily because I heard things happening. With the muscle energy approach there were so many of them. Try to position the head in eighteen different ways. It was so confusing. Every part of the body had a different muscle energy technique. After a while you just lost what was going on. And now I don't even know what's going on... Also with the muscle energy we'd work on one part of the body for one week and we'd just go flying through that. With the first two terms [the thrust techniques] we would stay, for instance, on the neck for three or four weeks. I can remember that material. I can remember sitting in class while it was going on. I can remember the tapes... because you would see it for three or four weeks in a row. Not with muscle energy, not because it was too complicated. It's just too much and you just don't see it being used."

The College's efforts to shift to the muscle energy approach were seriously hampered since the students saw few role models for muscle energy during their training. Some students felt they had had more opportunities to see physicians use the thrust techniques and they had seen them work.

One student said:
"The only thing I see people using are thrust techniques so I'm continuously relearning that. Boy, I wish I had more of that. I really do."

Another student said:
"I usually just see a crunch. They go in and they just... crack that back, give them the bilateral crunch as we would

> call it in the profession. That's all that's done and that's what we're learning in the third year and what we should be learning. We learned the thrust approach in the first three semesters and then we started getting all this other muscle energy. If you don't practice it, you lose it."

A third student said:

> "All the physicians in the offices all use the thrust techniques--the ones that use it [OMT]. Nobody uses muscle energy. And even when they use muscle energy they say, 'Listen, I'd rather use the thrust techniques for the reason that it's reinforcing for the patient, reinforcing for the physician.' I tried them [thrust techniques] on my wife the other night. She had something wrong with her neck. I went snap, snap, and she couldn't believe it. I couldn't believe that it worked. She felt much better. I had tried muscle energy techniques on her the night before and she said nothing happened. I don't care whether something happened or not, but she felt better."

A general concern expressed by students was that when the muscle energy curriculum was introduced it was not yet well organized and clearly presented. The shift in curriculum thus forced students to decide which techniques they were most comfortable with based on what they most often saw produce positive results and what they felt was better presented--the thrust approach.

For example, one student said:

> "My class was kind of the changeover class. We had one orientation to start with then in midstream they switched to another. It seemed like we had 19 or 20 ways to deal with one particular lesion. That's an exaggeration but we had numerous ways to deal with a particular lesion. I felt compelled to learn them all because we were tested on them all and now I don't even have one that I feel comfortable with for one particular lesion. I think they should decide what technique they think is best and teach that one and do that one."

OMT in Relation to Other Program Components

Students expressed the opinion that OMT should be integrated into the systems didactics when possible. Students felt that since OMT was the only class scheduled for afternoons, it was not that academic and worthy of their time. Quite a few students commented that OMT training for Units I and II, set apart from other components of the program, had been given less priority in the curriculum.

> This student's quote summarizes the situation:
> "One afternoon a week, late in the afternoon, when you're exhausted anyway and want to go home--It [OMT] was that kind of thing."

OMT Training in Relation to Other D.O. Schools

With regard to the positive range of comments when asked about OMT training students stated that their OMT training was adequate or "exceptional" in comparison to other D.O. colleges.

> For example, one student said:
> "I think our school has better OMT training than anyplace. Even if you don't turn their heads [patients'] and make a correction and cure them in a second, at least you'll spend some time with them and look at their vertebrae and try to find out if something's out of line... At least you're looking for structural problems."
>
> Students were aware that they had received the latest in OMT training. For example:
> "I talked to neurosurgeons and neurologists about cranial manipulation, and you know, they have no idea what it is. I don't even think they've really studied it more."
>
> A third student said:
> "I think our college is probably even more OMT oriented than many because we have some people there who are personality-wise very impressive and nice people. People have a lot of respect for them. Whether they have a lot of respect for OMT or not It's at least worthwhile to give it a shot because you respect someone who respects it."

No OMT Patients

Nearly all students complained about the lack of early OMT patient experiences during the first and second years of training. Instead of patients, students worked on fellow students, relatives and friends.

> One student said:
> "Well, philosophically you can't manipulate someone without a lesion. At least I can't, and there's no one in my class that has a lesion. Now, they found someone in class but my second-hand reports on those are that people were made worse."
>
> Another clerkship student remarked:
> "... But I was really pretty excited about OMT at one time when I was in school. Then I just didn't use it and it kind of atrophied. Now with all the other things going on if I had to deal with that I would consider it a real burden. Maybe if I was more proficient it would be different."

The lack of OMT patients during Unit I and Unit II was one major problem expressed by an overwhelming number of students. Students who were newcomers to OMT and the D.O. profession expressed genuine interest in developing proficiency with OMT but this development was hampered by the lack of patients.

OMT With Preceptors

Students expressed a range of comments about OMT training with their preceptors. A general concern was that many preceptors did not use muscle energy techniques and in some cases did not use OMT at all. Thus, in the preceptorship experience there was no guarantee students would be able to develop OMT skills if he/she wanted. Yet the College expects D.O. physicians in the preceptor program would have some clinical OMT skills and that students would learn from this exposure.

For example:
"As it was set up we had classes every week where we saw a film strip and what the procedure was. We practiced on each other... At the end of each term you'd have a patient come in with a basic problem. You'd evaluate him and find out what the problem was and treat it. As far as doing a great deal of it, doing it on a weekly basis so you really know what you're doing, we didn't. We've been going to preceptors' offices a half a day a week and supposedly we were doing a fair amount of that there. But I was in several preceptors' offices where I was there for ten weeks and never used it once. You'd almost have to select physicians who use it a great deal and see that everybody spends some time with them and treats several patients to get much benefit from it..."

OMT in the Clerkship Year: With Junior Partners

The College also expects students will get OMT experiences in the junior partner's office. Students indicated the junior partner clinical OMT exposure was inadequate and variable. In some cases the D.O. physician did not use OMT in his practice.

As one student said:
"When I was in a general practitioner's office his extent of OMT was diatherm--heat treatments. That was his OMT. So I would have occasion to use it there but I'd have to be pushy and tell him I'd like to try something. Then he says, 'Okay.' "

Students were optimistic about educating older members of the profession about the newer techniques in OMT.

Another student said:
"But I just see too many uses for it [OMT]. In the six weeks that I was in a GP's office he let me show him some of the newer techniques and let me treat some of the patients. I was even amazed at the success I had."

OMT in the Hospital Services

Students generally stated that OMT is not regularly done by physicians when in the student's opinion it is needed.

> For example:
> "When I was on medicine I would suggest things like thoracic pumps or rib-raising techniques or things like that for the attending's chronic patients. And they would say, 'Fine, sure, go ahead.' Just as long as they didn't have to do it. Just as long as they didn't spend the time doing it..."

Although the teaching hospitals are osteopathic institutions, students indicated OMT was rarely done in the hospital.

> A student said:
> "None of us bother with OMT here."

In some cases students said OMT was permitted in the hospital, but it was not encouraged.

> One student said:
> "I know of some people who have cracked backs around here and physicians really got down on them for doing it."

> Another student said:
> "I wouldn't dream of using OMT on a patient in a hospital... not from within myself, but as far as the clinical instructor I'm working with approving of it. I've never seen one of them using it."

Students also observed that although there is a place on the History and Physical [H & P] form for musculoskeletal examination, "not indicated" was written routinely by clinical instructors for the H & P examination.

> For example:
> "My position is it's got a very valuable place but you really begin to wonder when you're in the hospital. Sometimes when you mention something about OMT people laugh at you.. They really do. I don't even know where an OMT table is in either of the hospitals I've been in. You've got these OMT things to every H & P you do and they're ridiculous. When you've got an acutely ill patient you're obviously not going to put him through a

> structural exam. You can look for certain things but you can't do a structural exam on the patient. I think that in a lot of respiratory cases in particular people can be helped very much by OMT."

There seems to be no supervision of OMT done by clerkship students in the hospital environment since a majority of the D.O. specialists do not use OMT in the hospital.

> One student said:
> "From what I've heard from other people and from what I've seen going on in the hospital, I'd be very surprised to see anyone but maybe a general practitioner in the hospital use it. Even then I'm sure he'd go into the room and pull the curtain around the bed or something."

Students have observed that for the few clinical instructors who do use OMT in the hospital, "It's like a hobby." These clinical instructors, students mentioned, only work on other doctors and nursing staff, but not on patients.

An Elective in Waterville, Maine

Several students mentioned their elective at Waterville Osteopathic Hospital in Waterville, Maine. This hospital is unique in that it has a service of Osteopathic Medicine, chaired by Dr. Edward G. Stiles, whereby patients can be given an osteopathic diagnosis and OMT treatment. Students who hoped to see more OMT used in the D.O. hospitals were encouraged by the Waterville example of having staff men accept the osteopathic component to hospital care.[1]

---

[1]For more information about the Waterville Hospital and about Dr. Stiles, see George W. Northup, "An Interview," The D.O. 15, 7 (March, 1975) pp. 63-70.

## Summary

In summary, students who planned to develop their skills in OMT regarded the third and final year of training in OMT as very weak. For those who did not plan to use OMT there was no issue.

> This student's statements summarize the position very well:
> "I've never heard anybody talk about it [OMT] in the hospital and it's something that I learned about at school and that's it. Now I'm studying for Part Two of the Boards and they have manipulation questions on it that nobody seems to know the answers to--that kind of thing. If you really want the osteopathic students to know manipulation, you're going to have to spend a lot more time than we did and you'll have to give it some meaning... I've talked to doctors who've been around for a while and manipulation is a thing you have to go through to get your diploma and go out and be a doctor. That's the way it is. It doesn't mean it's bad. Somehow it's just not catching on."
>
> Another student said:
> "I know OMT has got to be a part of it because it's an osteopathic school but for all the hours we spent on that my skills are zero. I could have reached the same proficiency level with much less time spent and I don't have any answers on how to make that better."

Those who felt strongly about the uniqueness of the profession and valued OMT had opinions about their classmates who did not value OMT.

> For example:
> "I loved OMT and I studied it very diligently and I enjoyed it. I put an effort into it. I suppose if you didn't enjoy it you could slip through it and gain nothing and know nothing and never use it."

Several areas are suggested for further research based on students' interview data about their OMT training. Can OMT patients be utilized in Unit I and Unit II training? How can the use of OMT be developed in the clinical clerkship year? How can OMT be integrated into the systems didactics?

## Section 5: Clinical Clerkship Students' Conception of the D.O. Physician

### Introduction

This section presents a summary of three groups of opinions that represent the range of comments received from MSU-COM clinical clerkship students when asked what the osteopathic physician does that is different from the allopathic physician. There are those students who are advocates of the uniqueness of the D.O. profession; those who are not sure differences exist between M.D.'s and D.O.'s, or the non-committed; and those who are convinced there are no differences between a D.O. and M.D. doctor based on their training and previous experiences, the critics.

### Advocates of the Uniqueness of the D.O. Profession

Clinical Clerkship students who felt strongly about what the osteopathic physician does that is different from the allopathic physician appear to share similar interests and concerns about the D.O. profession. They are best described as the advocates of the uniqueness of the D.O. profession.

1. They most often plan a career of general practice.

2. They highly value OMT as an additional tool; consider it a positive aspect of their training; and are disappointed OMT isn't used in the hospital as they feel it should be. They definitely plan to use OMT in their practices.

   The following is a quote from a student:
   "I think osteopathic physicians are unique. I think they do have something that the allopathic can't give. Well, he could give it if he wanted to. The whole philosophy of the laying on of hands... should be stressed for an osteopathic physician. The whole idea of actually touching the patient and letting him know that he is a person and that you care and that there's something that you can do by even moving any part of his body. Whether he gets helped because of what you

did or whether he doesn't, it doesn't make any difference. If you've helped that patient that's great. Even though we were trained for a specific lesion, I haven't been able to put that into effect because you just don't have time to look for specific lesions. I think for general areas, even soft tissue, anything at all you can do to let the patient know that you are caring for him and that you are looking when he says he hurts, and if you can give any kind of explanation, that's just fantastic."

3. They emphasize the holistic approach as an important aspect of patient care.

   The following is a quote from a clerkship student: "I think that a fair number of physicians here, especially the residents, maybe because they have not been in practice themselves that long and maybe because they are still academic and in a training program, embrace the osteopathic philosophy more than probably do the staff men. The residents classically try to picture the patient as a whole entity and try to judiciously use medications, and not shotgun them with polypharmacy and that kind of thing."

4. They feel that D.O.'s generally provide better service and care for their patients.

   One third year student said: "Physicans who are D.O.'s treat their patients better... The reason I would even consider being an osteopathic physician was that D.O. physicians treated their patients better and were easier to get along with than the M.D.'s."

5. They feel the D.O. hospital environment is oriented towards specialization.

   One student expressed this sentiment in the following passage taken from an interview:

   Interviewer: "You're saying now, in the osteopathic hospitals in the State of Michigan, you see more of the similarities than the differences between the two professions?"

   Student: "Right. That's in the hospital setting. The general practitioner setting is different. I'm in the MAOGP group [Michigan Association of Osteopathic General Practitioners]. I find there are a

lot of differences between the people here who are teaching us in our Detroit setting and the people we might spend our junior partnerhip with. They have a very different approach. The emphasis seems to be going towards specialty, and the more you emphasize that the more you're going to get away from the osteopathic approach, the whole person type approach. It's fine that they're upgrading the profession with regards to their knowledge and their contributions to medicine... The different specialties are filling. There are osteopaths in all fields and their numbers are increasing. I think that the statistics are changing as to the number of students who stay GP and those who specialize. I'm sure specialization is increasing. There seems to be in this atmosphere an expectancy... When are you going to go on your residency? When are you going to look for a residency? If you say you're going to be a GP someone will look at you as though it was not the number one choice you could have made."

6. They feel there is little practice of OMT in the D.O. hospitals in Michigan which seems to bother them.

   For example, another clerkship student made the following comment:
   "Very rarely do I see any of the patients even given OMT, even ones with pulmonary problems where you could use percussion, rib-raising and the lymphatic pump. Very rarely do I ever see that done. A friend of mine was in Maine in an osteopathic hospital in which the patients were given OMT, the ones with respiratory problems and the ones with about any problems; cardiac, gastrointestinal... they were still given OMT of one kind or another. But right now in this hospital there's very little emphasis on any of that."

7. They value the time spent in a general practitioner's office for their preceptorship and junior partnership.

8. They are anxious about building the profession in terms of developing OMT and implementing the holistic approach.

9. They feel the increase in the number of specialists in the profession seriously detracts from total patient care.

   One student said:
   "As soon as you specialize then you start getting away from total care. You start talking about parts of the body or separate diseases and you get away from the patient. You start calling it a disease. Instead of treating people you're treating diseases. I fear for it. I really do."

One student went so far as to say:
"It's a subtle process of doing away with GP's."

10. They are concerned that the D.O. hospitals are growing in similarity to the allopathic institutions.

A clerkship student said:
"Unless the hospitals are going to start utilizing a little bit more of what the D.O.'s are trained to do, I don't know in the future if there'll be distinct osteopathic/allopathic hospitals. I don't mean to say that everyone in the hospital should have a structural exam; this, that, and the other thing. But I think that... in their healing ability they should be using it. You don't have the time to diagnose things osteopathically, you just don't. But I think you can use a lot of the techniques to make people feel better."

The Non-Committed Group

Another group of students had a different set of opinions and concerns. They still seemed to be searching for evidence that there are differences between the osteopathic and allopathic physician. They had not convinced themselves that differences exist.

1. Their career aspirations are either specialization, general practice, or undecided.

2. When asked the question what does the osteopathic physician do that is different from the allopathic physician, they emphasize the skill of osteopathic manipulative therapy but add that OMT is not practiced in the hospital setting and not used in many private practices.

One student remarked:
"I think osteopathy definitely has something more to offer the public, more than M.D.'s. It becomes academic if nobody uses OMT. Then we become the same. This becomes an academic statement too. It would be really nice to see more OMT used, because I really can't say even that it works. We've been told you can use it in heart attack cases and pneumonia, and that it really does fantastic things in just about all illnesses, but I have nothing to base that on. I've never seen it used except for primary musculoskeletal complaints and I have no way of evaluating it. I would like to see it used. If it's no good then at least I'll know it's no good. Otherwise, I'm just going to

be like everybody else and walk around saying, 'Yes, it's good,' and never use it. I might as well not say anything about it at all."

Another student said:
"In the office the osteopathic physician's going to use more manipulative care. Unfortunately, I don't see it in every office. They tell me they don't have time. In that respect, a lot of... the manipulations are not used. There are two or three basic ones that are used as opposed to what we learned... In the hospital--I never see manipulative care. I really wonder whether hospital care is that much different in an M.D. or a D.O. hospital."

A third student said:
"There's probably very little difference around here. In fact, someone told me about a study which was done a couple of years ago on the prescribing habits of the physicians in Michigan, and it turned out that the D.O.'s here in the state use a greater amount of polypharmacy than do the M.D.'s. There's not that much osteopathy as such used in this hospital."

3. They regard the holistic approach as an individual issue and not unique to D.O.'s.

One third year student said:
"When people ask me to explain what a D.O. is, first I explain the origin of osteopathic medicine; then the holistic approach. However, in my opinion the holistic approach is not unique to osteopathic medicine... It's just good medicine."

4. They seem to feel that family practice M.D.'s are close to the osteopathic philosophy, and mention that M.D.'s are using OMT.

One student said:
"From what I've read in M.D. journals, over the last few years they seem to be embracing more that philosophy themselves. I often hear them talking about the patient as the whole man especially in this journal right here. [Student refers to journal on coffee-table in resident's lounge.] It's an M.D. journal--that's the American Association of Family Medicine's journal for family practice..."

5. They regret that they have not kept up with their OMT skills, but believe OMT works.

6. They consider a merger between D.O.'s and M.D.'s a good thing because they feel a political separation of the professions is not a good enough reason to remain separate.

With regard to a merger, one student said:
"It's kind of a healthy competition, but I don't think it justifies the two being separate. I think that osteopathic manipulation should definitely be kept. Of course, that's my own prejudice. And it [OMT] should be evaluated more and either proven or disproven scientifically... Because right now most people who get into medical school are scientifically oriented and you're thinking, 'My gosh, it's like being a religious fanatic.' And then if you don't use it you say to yourself, 'My patients could be benefitting from this. Why don't I use it?' But if we had some type of biomechanics... some type of basis for this. Not D.O. research. That's like having Kellogg do a Kellogg's research. You're not going to receive any type of acclaim or acceptance from the M.D. profession or even the podiatrists if you have D.O.'s doing D.O. research. So that's that. I don't think the D.O.'s as a profession should stay separate because we're cutting off our noses to spite our faces. Right now we're doing better. I doubt if they'll ever get together unless the government does something because D.O.'s are finally getting the money for research... When the national health insurance comes we'll see that happen [a merger]. But I don't care."

Another student said:
"I don't think we need fighting between the two professions. They're a little different but their object is still one thing--to provide health care for people. They have the same goals. It'd be a lot easier if they'd work together rather than working apart... trying to look at ways they shouldn't merge."

A third student said:
"I don't think osteopathic physicians do a damn thing different, except some of them do some OMT. I don't think there are any other differences at all. I can't see anything in their being different."

The Specialty-Oriented Group

A third group of students felt very strongly that there were no differences between osteopathic physicians and allopathic physicians. This section describes their attitudes and range of comments.

1. They tend to be most critical of the College and the D.O. profession.

2. In terms of career choice, they most often indicate they would like to specialize.

3. They emphasize the unscientific aspects of OMT training and state they have no plans for using OMT in their careers.

   The following is a student comment:
   "I won't even talk about that [OMT training]. I won't practice OMT. The way it was taught at school--it's unscientific... OMT was... it was just drudgery. Go out and snap, crackle, and pop and everybody feels better. I don't believe it helps people... Maybe it does make someone feel better, and if that's the only thing it does, well fine then."

4. They strongly de-emphasize OMT's role in medicine.

   A clerkship student said:
   "... To me it was something I couldn't see myself doing. I didn't have much respect for someone who would do only manipulation. I consider it--after learning all we've learned, kind of throwing away too much. It just didn't appeal to me at all."

5. They regard the holistic approach as very vague.

6. They are concerned about the low status of the profession. Several students talked about a Chicago survey of one thousand paramedical personnel in which the D.O. profession ranked behind X-ray technician or forty-first in category.

7. They have experienced examples of unethical medicine practiced by individual D.O. physicians--specialists and general practitioners alike.

   A clinical clerkship student said:
   "It doesn't make oneself proud of his profession when he goes out and he sees what I have seen and heard what I've heard from other students."

8. They are critical of spending six weeks of their clerkship year in a junior partnership.

   A clerkship student said:
   "But other than that... it was not worth six weeks. I could have learned those things in two days. It's not worth a six week period."

9. They feel the M.D. and D.O. professions are separate for political reasons.

   One student said:
   "The true issue today is more of a political issue than a skills difference."

10. They regard the A.O.A. as an inflexible organization of older D.O. physicians. Several chose to mention their opinions about the A.O.A. One student referred to the student council referendum passed by all D.O. student bodies that the D.O. degree be changed to an M.D.O. degree which was tabled by the A.O.A.

11. They are appreciative to the profession for providing them training to become a doctor.

    One student said:
    "I'm really grateful to them for giving me the opportunity to get an education and to go out and practice medicine. That's what I wanted to do. But geez, they make me ashamed of it too, sometimes."

## Summary

Based on the research data, there appears to be a relationship between students' career choice and opinion about what the osteopathic physician does that is different from the allopathic physician. Students who have definitely decided careers as general practitioners and have not waivered from this lifetime goal hold the opinion that osteopathic medical physicians provide better patient care. Students who wish to specialize make up the group that is most critical of the position that osteopathic medical physicians are different from allopathic physicians. It should be emphasized that they are also advocates of the osteopathic

medical profession but for different reasons. They value the profession's separateness for political and economic motivations. Their justification for this position is that as D.O. specialists they will need referrals from other D.O.'s who are general practitioners. The middle group of students are still searching for differences between M.D.'s and D.O.'s and have varying awareness levels about the osteopathic medical profession. Some are newcomers to the profession; some have known about the profession since childhood. This middle group would like to see OMT used by all doctors. They feel that the separateness of the profession reduces the opportunity for more people to benefit from OMT. Many of these students are undecided as to their career choice. Thus it is premature to identify relationships between career choice and opinions about the D.O. physician for the middle group.

## Section 6: The Future of the Osteopathic Profession

### Introduction

In Section 6, a summary of the survey questionnaire data regarding changes in osteopathic medicine and medical practice is presented and analyzed. In addition, students' opinions about the future of the profession and their preferences as to the relationships between M.D.'s and D.O.'s have been documented.

### Osteopathic Medical Changes

In the final section of the survey questionnaire students were asked to indicate their opinion about foreseeable changes in medical practice in terms of what they would/would not like to see

happen and what will/will not happen. See Appendix II, p. 137 for questionnaire items. Minority and women responses were analyzed for possible deviation in response. The data indicates a majority of males and a majority of females feel the same way about what they would like to see happen and what they feel will happen. The minority students who completed this section of the questionnaire (N = 3 out of 5 Black students), however, expressed no identifiable pattern of response and were a small research sample. The following is a summary which highlights those questionnaire items receiving a majority response from MSU-COM students in the August 1975 graduating class.

Question 1

Ninety-one percent of the students listed they would not like D.O.'s to become identified as specialists and sub-specialists. Eighty-four percent feel the profession will not be identified as specialists and sub-specialists. Based on data obtained from the interviews, two groups of students supported this statement for different reasons. First, those who planned to specialize (20% of the class) feel there needs to be a large population of D.O. general practitioners to receive patient referrals. Second, those who planned to be general practitioners (62%) would like to see the profession's image of providing service-to-society maintained and the rights of general practitioners respected within the A.O.A. structure.

Question 2

Eighty-three percent of the students indicated they would not like to see all or nearly all D.O.'s work in either group practices or as salaried professionals for large scale health care units. Sixty-four percent indicated that they feel that most D.O.'s will not work in

group practices or as salaried professionals. This pattern of response indicated most clerkship students wished that "more than a few" of their profession would establish private practices. It is worth reiterating that an overwhelming majority of students, however, contemplate practices characterized as "partnership," "private group," or "hospital based groups." Only twelve students listed a practice characterized as "individual." (See Table 11a, p. 135).

Questions 3, 4 and 5

Sixty-seven percent of the students listed they would not like to see medical care financed by governmentally sponsored, prepaid insurance. Seventy-one percent, however, felt that government will eventually sponsor prepaid insurance. The pattern of response for this item indicates that for the majority of students surveyed, the future role of the government in health care will be in conflict with their opinion of what government should do. Also, 86% of the students would not like to see public legislation limit fees a D.O. may charge for services. But barely a majority, 52% of the class, feels this will not happen. Fifty-three percent would not like to see comprehensive medical screening financed out of public funds. Sixty-seven percent of those surveyed feel this will not happen. It is significant that students consistently rejected government participation in aspects of the health care delivery system.

Questions 6 and 7

Fifty-seven percent would like to view medicine as more the manipulation of the social and emotional factors in the life style of the patients; preventive medicine and comprehensive care for patients being significantly more important functions of the physician. Seventy-

two percent, however, feel medicine will continue to emphasize the treatment of disease. Ninety percent of the students feel hospitals should continue to be used as diagnostic and treatment centers. Ninety-seven percent feel that hospitals will continue to be used in such a manner.

Questions 8 and 9

Sixty percent of the students would not like to see D.O.'s emphasize computerized diagnosis systems and computerized sources of treatment selection. Sixty-six percent feel D.O. physicians will not have access to such systems. Ninety-five percent would not like to view D.O.'s as devoting less time to patient care and significantly more time to supervisory and/or managerial functions. Eighty-three percent feel that this will not happen -- that is the D.O. physician will continue to devote time to patient care rather than managerial functions. The patterns of response received on these two questionnaire items support the position that D.O.'s would like to be regarded as personally involved in determining patient care management which cannot be channeled through computers and which involves the additional requirement of spending time with patients.

## Future of the Profession

### Advocates of the Profession

During the interview, students were asked how they would like the future of the profession to develop. Their remarks have been categorized into three groups which represent the range of comments received. Those who advocate the D.O. profession have different opinions about the direction of development. One group would like the profession to continue producing general practitioners and regarded this as the significant contribution by D.O.'s to society. They hoped the profession would

develop research on OMT, the emphasis of the holistic approach, and the osteopathic philosophy. Most of these students planned general practice careers and viewed the increase in osteopathic specialists as a negative occurrence because this would detract from the osteopathic philosophy of treating the individual rather than the disease.

> A clinical clerkship student expressed this opinion:
> "I'd say the osteopathic physician is coming more and more toward the allopathic at least in the Detroit settings. I feel they're trying to become specialty oriented and very advanced in their medical approaches and place less emphasis on the osteopathic approach... The emphasis seems to be going toward specialty and the more you emphasize that the more you're going to get away from your osteopathic type approach."

The hospital experience reinforced the opinion held by students that D.O. specialists are the same as M.D. specialists. In fact, they expressed disappointment that physicians in D.O. hospitals did not utilize the osteopathic approach to patient care nor did hospital staff physicians encourage the general practice career.

> A student remarked:
> "There seems to be in this atmosphere an expectancy... When are you going to go on your residency? When are you going to look for a residency? If you say you're going to be a GP someone will look at you as though it was not the number one choice that you could have made."

They were optimistic that the younger members of the profession will espouse the ideals of the osteopathic profession.

The other group of advocates of the profession encouraged the development of the profession in the area of post-graduate training for D.O.'s in allopathic teaching hospitals and research centers.

> For example, one student said:
> "There should be more flexible post-graduate training policies... The D.O. profession restricts this but I think you should have opportunities to go out into allopathic hospitals. I'm totally against this 'get

> all your training in a D.O. institution,' because I've seen the D.O.'s that are out in practice now. All their surgeons are trained by the same guy. No one does anything different. There's too much inbreeding in this profession and it's not healthy."

They mentioned the foreign medical graduate (FMG) was part of the M.D. profession's renewed interest in cooperation.

> For example:
> "There are plenty of allopathic hospitals that would love D.O. interns and D.O. residents because they want an American doctor that speaks English and they have lots of empty residencies like anesthesiology that need filling."
>
> With regard to the future of the profession, the same student said:
> "... In Michigan you have a large population of D.O.'s and you're turning out more all the time from Michigan residents graduating from MSU. I think the profession is going to be more or less saturated in a few years, if it isn't already in the Michigan area. I think some of us are going to be forced out and start to pioneer in other states. I think the osteopathic profession--if you look into it a bit--a lot of it was done by pioneering within the last twenty years."

This group also strongly supported research on OMT because they felt OMT was too unscientific at this stage. They were convinced differences between M.D.'s and D.O.'s did not exist but preferred to see the osteopathic medical profession maintained.

> For example, one student said:
> "I see practically no difference at all between the two professions. I've seen probably more variations individually from one D.O. to the next than I've ever seen between D.O.'s and M.D.'s."
>
> Another said:
> "I like the idea of a D.O. profession and an M.D. profession because I think competition is good... It will give much better health care delivery."
>
> A third advocate of the D.O. profession said:
> "When I was brought up we always went to M.D. physicians. So did my friends and their wives and their children. You always have to explain. What do you

> do? If you do the same things, then why are you different? A whole gamut of questions that I despise to even talk about. I figure since I had to go through that routine, I would just stay an osteopath. I like that identity. Not only that, I've become proud of the people I work with. In some discussions I've felt a little bit threatened; I've had to do some sticking up and now I feel very comfortable. The future of the profession--I really hope it stays. I'd like to stay a D.O.; I don't want to lose that. I feel they made me a doctor and I'm very grateful for that. I really like what I've become and what I'm doing. Being a D.O. is a funny thing--with a lot of explaining to do--and now I figure after all that explaining I've done I want to stay a D.O."

### Advocates of Patient Care

The third group of students regarded themselves as "advocates of patient care." They indicated they had seen minor differences between M.D.'s and D.O.'s and did not feel the differences were significant enough to maintain the two separate professions. A forced merger by the government was considered a positive outcome. They stated patient care was more important than "politics" and "competition." They hoped that OMT could be scientifically proven so that both the M.D.'s and the D.O.'s would include it in the diagnosis and treatment of patients.

## More Cooperation

### Clinical Rotations for D.O. Students in M.D. Hospitals

Students felt there should be more cooperation with M.D.'s and with their institutions. Clinical rotations in M.D. institutions for D.O. students were frequently suggested by students who had different opinions on the future of the profession. The main issue expressed by an overwhelming majority of students was that the D.O. hospitals had a low census at certain times of the year for certain services and in the

Detroit area pediatrics cases are referred to Children's Hospital, which is an allopathic institution with a few D.O.'s having privileges there. For example, one student described the pediatrics service as a fiasco. The following is an excerpt from that interview.

> Interviewer: "What are some of the reasons?"
>
> Student: "Low census, no doctors, no residents to talk to, and the pediatricians are busy. They really can't give you that much time because they've got busy office practices. They're not here in the mornings... The College should make sure they have pediatrics someplace where they do pediatrics! Either rotate us to Children's or someplace. There's no sense in giving us pediatrics here because you don't learn any clinical skills. I didn't see a single kid that I had to do any kind of hospital procedure on."

More Cooperation with M.D.'s

In general, students felt there should be more cooperation and communication with the allopathic profession. Several students mentioned they had friends who were M.D. students and hoped to maintain a professional relationship with them.

> One student's comments illustrate this issue: "Separate but equal is something that the osteopathic profession has tried to maintain and I think for good reason. As far as the future goes, I think that we must have more cooperation between the allopathic and osteopathic schools. If a man is an M.D. and another man is a D.O. that they could sit down as gentlemen and communicate, and possibly work up cases between them. I think to stay off in one little clique is to the detriment of the patient. I think the patient benefits from the best hospital care and I have noticed recently that M.D.'s and D.O.'s are going into practice together. I don't know if it has the blessing of the A.M.A. or the A.O.A. but I know that there are some right here at this hospital... I do definitely think that we'll maintain a separate but equal standing. I for one hope for more cooperation between the two groups."

> Another student said:
> "I think being associated with the M.D.'s and seeing they're not totally different than we are is good too... It's great to have classes with them [M.D. students] and for that matter I think it would be good if we had more options to do clinical rotations in M.D. hospitals. I think there's just a little too much prejudice between the two schools [MSU-COM and MSU-CHM]. If they'd open up a little more it would open up educational opportunities for both schools."

More Public Relations

The overwhelming majority of students mentioned the osteopathic profession needed to develop more effective public relations. Some students felt a change in the degree from D.O. to M.D.O. would help the public realize that the D.O. physician was not strictly a "bone" doctor. The concern was that the public does not have enough knowledge about the profession. The little information the public has is either outdated or mythical. The public relations effort should relate to the present functions of the D.O. physician.

## Summary

In summary, the survey questionnaire data indicated a majority of males and a majority of females held the same opinions about what they would like to see happen and what they feel will happen regarding osteopathic medical changes. The racial/ethnic minority students expressed different opinions from their classmates on several issues. A majority of the class consistently rejected government participation in aspects of medical care and most racial/ethnic minority students did not share this opinion. Three groups of students expressed varying opinions when asked how they would like the future of the osteopathic profession to

develop. One faction encouraged the development of the uniqueness of the profession. They felt the profession should remain separate because D.O.'s can better serve society's health care needs than M.D.'s. The other group felt M.D.'s and D.O.'s provided the same quality of care and believed the osteopathic medical profession should be maintained and its specialty fields developed. The third group of students considered the maintenance of two professions as a questionable situation when for them patient care was the most important. These students did not feel the minor differences between the M.D.'s and D.O.'s justified the existence of two professions. All students would like to see an increase in cooperation and communication between the two professions. Some regarded clinical rotations in allopathic institutions for osteopathic medical students as a positive educational outcome. The overwhelming majority of students strongly urged the profession initiate more effective public relations about the osteopathic medical profession reflecting the present functions of the D.O. physician.

# CHAPTER V

# CONCLUSIONS AND RECOMMENDATIONS

## Introduction

The purpose of this study was to evaluate a professional program leading to the Doctor of Osteopathy degree using several interrelated procedures. Part of the task was to identify the views and concerns of clinical clerkship students in the August 1975 graduating class at Michigan State University College of Osteopathic Medicine. The study identified their views and concerns by means of a taped semi-structured personal interview. A survey questionnaire provided data regarding background characteristics and views about changes in medicine and medical care. Pertinent additional background data about students were obtained from either the College or the University's Department of Information Services. Based on student responses, a summary statement about the osteopathic medical program was developed and submitted to MSU-COM faculty and administrators for review and feedback. The reactions of selected osteopathic medical faculty and administrators about students' perceptions of the MSU-COM training program have been obtained by means of a semi-structured personal interview and have been included in the Implications Section of this Chapter.

The present chapter is organized as follows:

1. Major findings and discussion
2. Implications
3. Recommendations

## Major Findings and Discussion

The major findings regarding students' views and concerns about their osteopathic medical training program were:

About the MSU-COM Program:

-- A majority of third year students favored the use of simulated patients for the systems courses when real patients were not available.

-- A majority of clinical clerkship students regarded the Unit II requirement of spending afternoons in the osteopathic teaching hospitals in Detroit as totally inadequate clinical exposure and favored spending at least mornings or full day clinical hospital experiences immediately after and related to each systems course.

-- A majority of third year MSU-COM students feel the clinical clerkship experiences needed to be standardized especially in a three-year program.

-- Students who held strong feelings about the MSU-COM program favored the four-year program for the training of general practitioners.

About the Osteopathic Medical Profession:

-- Ninety-one percent would not like to see osteopathic physicians become identified as specialists and sub-specialists and eighty-four percent feel this will not happen.

-- Students who did not favor a merger between M.D.'s and D.O.'s favored approval of post graduate training for D.O.'s in allopathic teaching hospitals and research centers.

-- Students overwhelmingly urged the initiation of effective public relations to reflect the present functions of the osteopathic medical profession.

-- Three groups of students held differing views on the future development of the profession. One group of students would like the profession to develop along the pattern of giving emphasis to producing general practitioners and the uniqueness of osteopathic medicine. Another group favored the development of residency programs for specialties. A third group of students were unsure as to the future development of the profession and questioned the maintenance of two medical professions.

About the MSU-COM Students:

-- A majority of students list either a personal or family friend as the most significant person that influenced them into the osteopathic medical profession.

-- Fifty-six percent of the August 1975 graduates were the first member of their family to begin a career in the health care field.

-- Seventy-five percent of the students sought admission to at least one or more allopathic medical schools.

-- A majority of the members of this class were Michigan residents, white single males, 27 years old at the time of graduation, and had earned their undergraduate degree from a 4-year public institution.

-- Sixty-two percent of the students indicated they contemplated a general practice career; nineteen percent a specialty field; sixteen percent undecided; three percent a research/teaching career.
-- More than a majority of the students consistently rejected government participation in these aspects of the health care delivery system: prepaid government insurance (67%); limits on physicians' fees (86%); and comprehensive medical screening financed out of public funds (53%).

It would appear from the data that students perceive there to be both specific and general areas of concern regarding their osteopathic medical training program. A general area of concern consistently reported by students throughout this study was the need for the College to develop meaningful additional patient experiences. When commenting on their osteopathic manipulative therapy instruction, students overwhelmingly express dissatisfaction with having to apply osteopathic manipulation on fellow students who expressed no osteopathic dysfunction. When commenting on improving their systems courses in Unit II, students encouraged the use of simulated patients when real patients were not available. When offering their ideas as to improving the transition between Unit II didactics and the Unit II clinical clerkship year, students mentioned increased patient exposure in the hospital clinical setting. On this issue, students strongly urged spending at least full days or full mornings in the hospital environment rather than afternoons. Students recognized that two contributing factors to the transition problem between Unit II and Unit III relate to the geographical separation of the College from its clinical teaching facilities and a lack of clinical faculty on campus.

With regard to the clerkship year, students expressed the general concern that more support services were needed for Unit III of the College's program. Part of establishing support services is that additional personnel from the College be involved in the clerkship program and be physically based near the Detroit area. To improve the transition between didactics medicine and the clinical medicine, the recommendation that there be a clinical clerkship orientation meeting at the start of the third year and at the start of each rotation was offered. Students expressed the optimism that if more personnel were involved in the teaching hospitals an increase in communication with the College and improved experiences in the clerkship year would result.

## Implications for the College

Reactions obtained from selected MSU-COM faculty and administrators indicated the summary statement about the medical training program interfaced with other in-house evaluation efforts served several purposes some of which were:

(1) reinforced knowledge about problem areas in the College program,

(2) spurred the development of a clinical clerkship student orientation and the plans for hiring additional staff for the clinical clerkship component,

(3) encouraged the development of a College-sponsored retreat with volunteer clinical faculty to improve communication,

(4) served as a basis for study by members of the College's in-house self-study accreditation committee, and

(5) provided the College's Admissions Office with new information about the characteristics of a single graduating class of MSU-COM students and served as a start toward collecting background data about students.

From the researcher's personal perspective, this program evaluation study also helped underscore MSU-COM's dual function of continuing to produce primary care physicians and conducting research on manipulative techniques.

This study indicated that MSU-COM has successfully selected a majority of individuals who planned general practitioner careers which was maintained during their training years. Politically, this is a very positive outcome for the profession in the State of Michigan. It is speculative at this point to say whether this population of D.O. physicians will continue to develop and maintain the holistic approach and establish the small community-based practices representative of the osteopathic profession in Michigan. A strong message received particularly from the specialty career-oriented individuals, however, is that they do not feel from personal experience that they will use OMT nor are they sure of its usefulness. It is further surmised that these individuals have entered the osteopathic medical profession as a second choice but with strong science backgrounds and will not accept OMT as a valid part of medicine without proof of its value, which points to the pressure for research on osteopathic manipulative techniques and osteopathic principles. The profession, through MSU-COM, occupies a favorable position to avail of university resources to produce such research.

Specifically, the College's Department of Biomechanics has attracted an inter-disciplinary team of faculty who are engaged in research on osteopathic principles and techniques. In terms of the long-range objective of producing research/teaching oriented individuals, MSU-COM appears to be attracting research-minded applicants for the profession, as evidenced by the selection of students who already held Ph.D. degrees and who participated in the College's Faculty Development Program, and plan research/teaching careers.

## Implications for the Profession

This study also has implications for the profession. Based on the researcher's perceptions about the recent changes in osteopathic medical education and from the data obtained in this study, the following discussion enlarges on the possible impact upon the osteopathic medical profession from moving its training programs to university campuses.

By originally establishing its colleges in small communities in isolation from mainstream academia, the D.O. profession in the past experienced constant pressure to prove its worth. The reaction from the osteopathic medical community (as a minority medical profession) was to prove itself by emphasizing its unique characteristics such as the importance of osteopathic manipulation and osteopathic principles. The profession also demonstrated its validity and contribution to health care by successfully training a population of general practitioners who established practices in rural communities.

Moving osteopathic medical colleges into affiliation with the university may be accompanied by certain trends, however, that

would tend to encourage the gradual elimination of the unique nature of the osteopathic medical profession. First, the data in this study identified that (1) there is a tendency for students to apply and be admitted, although they have no direct interest in osteopathic medicine per se; (2) there is a disinterest of many students in osteopathic manipulative techniques; and (3) there are many students interested in specialization.

Additionally, as the D.O. profession gains acceptance in academia, the framework for more ready and widespread public acceptance is created. The pressure which was previously exerted on the osteopathic profession is eased and may even cease altogether. The acceptance of the D.O. profession as an equivalent to the M.D. profession could readily lead to the elimination of the need for the profession to emphasize those characteristics regarded as osteopathic and different from the M.D. profession.

These points seem to be sufficiently apparent and are mentioned to initiate attention on some of these critical issues surrounding the D.O. identity crisis. Furthermore, this study, as the first attempt to examine osteopathic medical training conducted in affiliation with a major university, stresses the importance of stocktaking in relation to the M.D. profession.

## Recommendations for Further Research

Areas suggested for further research have grown from this preliminary program evaluation study using clinical clerkship students at Michigan State University College of Osteopathic Medicine. These are organized as follows:

(1) Further research for the College,

(2) Further research for the osteopathic medical profession at the national level.

Research for MSU-COM

1. There is a need to examine the perceptions of additional osteopathic medical students about their training program by studying the reactions of other classes of clinical clerkship students.

2. There is a need to examine the reactions of graduates of MSU-COM regarding their medical education now that they are in their internship year.

3. There is a need to obtain and analyze background characteristics of other graduating classes from MSU-COM.

Research for the Osteopathic Medical Profession

Osteopathic medical colleges have been operating as privately supported, free-standing institutions until the establishment of Michigan State University College of Osteopathic Medicine, 1969, the Texas College of Osteopathic Medicine, 1970, and the latest such affiliation, the Ohio University College of Osteopathic Medicine in 1975. This new pattern of affiliation of osteopathic medical colleges with established universities may gradually produce significant changes in the D.O. profession and its training programs. This and other factors suggest that the next decade may be a critical one in the development of the osteopathic medical profession. It is recommended that the profession take a leadership position by initiating support for the development of reporting procedures and the collection of data which

will monitor the changes and provide feedback on some of the crucial issues in osteopathic medical education as they develop. Areas suggested for further research are:

A. Regarding osteopathic medical student selection:

- -- What admission criteria are presently used to assess commitment to the osteopathic medical profession and philosophy?
- -- Is there a demographic data base presently available that is revelatory of shifting patterns in applicant and student population characteristics?
- -- What are the geographical sources of osteopathic medical applicants and students?
- -- What are the socioeconomic backgrounds of osteopathic medical applicants and students?
- -- What data base system could be instituted to systematically collect information about D.O. student characteristics?

B. Regarding those presently enrolled in D.O. colleges:

- -- What are the entering students' attitudes toward or commitments to OMT, the osteopathic philosophy, and the osteopathic medical profession?
- -- Why do students attend an osteopathic medical college?
- -- What are senior students' satisfactions and dissatisfactions with their professional training?
- -- What are senior students' views and concerns about the future of the profession?
- -- What are the career plans of senior students?

C. Regarding the education process:

- -- How is OMT training conducted? Is this adequate?
- -- How are osteopathic principles introduced and developed? Are these principles reflected in the curriculum?
- -- How are the basic science and clinical science training integrated? Does the university affiliation facilitate or pose any problems in integration?

-- To what extent is there a maintenance of GP orientation versus specialty training?

D. Regarding those who have completed osteopathic medical training recently and are now interns or in practice:

-- What are their views about the developing nature of osteopathic medicine as to philosophy, general practice orientation, and OMT?

-- What suggestions do they have for student selection and training?

-- To what extent do they use OMT?

-- What are their views about the long-term relationship of the D.O. and the M.D. professions?

# BIBLIOGRAPHY

BIBLIOGRAPHY

American Osteopathic Association. "Educational Standards for Osteopathic Colleges." Journal of the American Osteopathic Association 70, 5 (January 1971):478-482.

American Osteopathic Association. "Fact Sheet." The D.O. 16, 2 (October 1975):37-38

American Osteopathic Association. "Motivation Factors in the Choice of Osteopathic Medicine." Journal of the American Osteopathic Association 62, 6 (January 1963):433-434.

American Osteopathic Association. "Personal Qualifications Considered by Admissions Committees." Journal of the American Osteopathic Association 63, 5 (January 1964):463-464.

American Osteopathic Association. "The Osteopathic Concept as Interpreted by Osteopathic Colleges." Journal of the American Osteopathic Association 61, 5 (January 1962):407-409.

Anderson, G. Lester, ed. Education for the Professions: 61st Yearbook, National Society for the Study of Education. Chicago: University of Chicago Press, 1962.

Babbie, Earl R. Survey Research Methods. Belmont, California: Wadsworth Publishing Company, Inc., 1973.

Baker, Collin, M.D. "What's Different About Family Medicine?" Journal of Medical Education 49, 3 (March 1974):229-235.

Becker, Howard S.; Geer, Blanche; Hughes, Everett C.; and Strauss, Anselm L. Boys in White. Chicago: The University of Chicago Press, 1961.

Bloom, Samuel W. "The Sociology of Medical Education: Some Comments on the State of a Field." The Milbank Memorial Fund Quarterly 43, 2 (April 1965):143-184.

Blumberg, Mark S. "Accelerated Programs of Medical Education." Journal of the American Medical Association 46, 8 (August 1971):643-651.

Byrne, Niall, and Cohen, Robert "Observational Study of Clinical Clerkship Activities." Journal of Medical Education 48, 10 (October 1973):919-927.

Carnegie Commission on Higher Education. Higher Education and the Nation's Health. New York: McGraw-Hill Book Company, October 1970.

Citizens Committee on Education for Health Care. Osteopathy in the United States and Michigan. Michigan State Board of Education, August 1967.

College of Osteopathic Medicine, Michigan State University. A supplement to the MSU Catalogue. 1974.

Committee on Colleges and Bureau of Professional Education of the American Osteopathic Association. Accreditation Policies and Procedures for the Colleges of Osteopathic Medicine. American Osteopathic Association, 1975 edition.

Dressel, Paul L. College and University Curriculum. Second Edition Berkeley, California: McCutchan Publishing Company, 1971.

Elrick, Harold, M.D. "The Clinical Education of the Medical Students." Journal of Medical Education 42, 5 (May 1967):453-459.

Flanagan, John C. "The Critical Incident Technique." Psychological Bulletin 51, 4 (July 1954):327-358.

Flexner, Abraham. Medical Education in the United States and Canada. Carnegie Foundation for the Advancement of Teaching: Bulletin No. 4. New York: The Merrymount Press, 1910.

Garrard, Judith, and Weber, Richard G., "Comparison of Three and Four Year Medical School Graduate." Journal of Medical Education 49, 6 (June 1974):547-553.

Greenman, Philip E. "Osteopathic Undergraduate Education." Journal of the American Osteopathic Association Supplement, 73 1974, pp. 11-17.

Greenman, Philip E. "Outcome of an Osteopathic Medical Education Center." The D.O. 15, 10 (June 1975):130-132.

Greenman, Philip E. "The Pros and Cons of a Three Year Curriculum." The D.O. 16, 5 (January 1976):119-122.

Gorden, Raymond L., Interviewing: Strategy, Techniques and Tactics. Homewood, Illinois: Dorsey Press, 1969.

Gross, Martin, L. The Doctors. New York: Random House, Inc., 1966.

Hughes, Everett; Thorne, Barrie; Debaggis, Agostino; Gurin, Arnold; William, David. Education for the Professions of Medicine, Law, Theology and Social Welfare. New York: McGraw-Hill, 1973.

Hughes, Everett C. "Professions." Daedalus 92, 4 (Fall 1963):655-668.

Inglis, Brian, Fringe Medicine. London: Faber and Faber, 1964.

Kabara, Jon J. and Jacobson, Lawrence E. "The Spiral Curriculum: For Training Osteopathic Physicians." The D.O. 12, 11 (July 1972):93-101.

Knowles, John, H., ed. Views of Medical Education and Medical Care. Cambridge, Massachusetts: Harvard University Press, 1968

KMB Health Systems, Inc. Clinical Sciences at Michigan State University: The Role of the University Hospital as a Clinical Education Center in the Developing Programs of the College of Human Medicine and the College of Osteopathic Medicine. May, 1974.

Leslie, Larry L., and Morrison, James L., "Social Change and Professional Education in American Society." Intellect 102, 2356 (March 1974):357-360.

Levine, David M.; Barsky, Arthur J.; Fox, Renee C.; Freidin, Ralph B.; Williams, Sherman R.; Wysong, Jere A. "Trends in Medical Education Research: Past, Present, and Future." Journal of the American Medical Association 49, 2 (February 1974):129-136.

Magen, Myron S. "Introduction to the COM Retreat." MSU-COM Publication, 1975. par. 3-5.

Mayhew, Lewis B. Changing Practices in Education for the Professions, Southern Regional Education Board. Research Monograph No. 17, 1971.

Mayhew, Lewis B. Graduate and Professional Education, 1980. The Carnegie Commission on Higher Education. New York: McGraw-Hill Book Company, 1970.

Mayhew, Lewis B. "Jottings." Change 2, 6 (November/December 1970): 81-83.

McGlothlin, William J. The Professional Schools. New York: The Center for Applied Research in Education, Inc., 1964.

Merton, Robert K.; Bloom, Samuel; and Rogoff, Natalie. "Studies in the Sociology of Medical Education." Journal of Medical Education 31, 8 (August 1956):552-565.

Merton, Robert K.; Reader, George; and Kendall, Patricia L. (eds.) The Student Physician. Cambridge: Harvard University Press, 1957. Second Printing, 1969.

Michigan Public Act No. 162. Statutes (1969), pp- 325-327.

Mills, Lawrence W. The Osteopathic Profession and Its Colleges. Chicago, Illinois: American Osteopathic Association, 1957.

Moore, Wilbert E., and Rosenblum, Gerald W. The Professions: Roles and Rules. New York: The Russell Sage Foundation, 1970.

"Medical Colleges Overcoming Isolation Syndrome." MSU News Bulletin. (February 13, 1975).

New, Peter Kong-ming. "The Application of Reference Group Theory to Shifts in Values: The Case of the Osteopathic Student." Ph.D. dissertation, University of Missouri, 1960.

New, Peter Kong-ming. "The Osteopathic Student: A Study in Dilemma." In Patients, Physicians, and Illness, pp. 413-420. Edited by F. Gartley Jaco, Glencoe, Illinois: The Free Press, 1958.

Northrup, George W., D.O. "Edward G. Stiles, D.O.: An Interview." The D.O. 15, 7 (March 1975):63-73.

Northup, George W., D.O. "Papers from the Conference/Workshop on Manipulative Therapy: History of the Development of Osteopathic Concepts, with Notes on Osteopathic Terminology." Journal of the American Osteopathic Association 75, 4 (December 1975):405-409.

O'Donnell, Albert E., Ph.D. "Motivation Factors Influencing a Student's Selection of Osteopathic Medicine as a Career." Journal of the American Osteopathic Association 70, 5 (January 1971):485-487.

Olesen, Virginia, and Whittaker, Elvi W., "Critical Notes on Sociological Studies of Professional Socialization." In Profession and Professionalization. pp. 179-221. Edited by John A. Jackson. Cambridge, England: University Press, 1970.

"One Medicine." Pennsylvania Medicine 71, 3 (March 1968):50-51.

Page, Robert G., and Littlemeyer, Mary H., eds., Preparation for the Study of Medicine. Chicago: University of Chicago Press, 1969.

Page, Robert G., "The Three Year Medical Curriculum." Journal of the American Medical Association 213, 6 (August 10, 1970):1012-1015.

Price, David M. "Informal Communication and Propinquity Among Volunteer Clinical Faculty in a Medical School." Ph.D. dissertation Michigan State University, 1974.

Report of Special Ad Hoc Committee of the Society as Amended and Approved by the House of Delegates on October 1, 1969. "Osteopaths and Doctors of Medicine." Rhode Island Medical Journal 52, 11 (November 1969):623-625.

Roemer, Milton I., and Friedman, Jay W. Doctors in Hospitals: Medical Staff Organization and Hospital Performance. Baltimore: The Johns Hopkins Press, 1971.

Roth, Russell B., M.D. "Osteopathic and Medicine--Licensure and Certification." Journal of the American Medical Association 209, 1 (July 1969):94-96.

Schein, Edgar H. Professional Education: Some New Directions The Carnegie Commission on Higher Education. New York: McGraw-Hill Book Company, 1972.

Sharma, Sylvia L. and Dressel, Paul L. Interim Report of an Exploratory Study of Michigan State University College of Osteopathic Medicine Training Program. Michigan State University, 1975.

Simon, Harold J., M.D., Ph.D. "The Medical Student: What He Wants and Needs Versus What He Gets." Journal of Medical Education 42, 8 (August 1967):775-780.

Sodeman, William A., M.D. "Osteopathy and Medicine: Undergraduate Education." Journal of the American Medical Association 209, 1 (July 1969):85-89.

Steinfeld, Jesse L., M.D. "Changing Patterns in Medical Education in the Seventies." Journal of the American Osteopathic Association 71, 5 (January 1972):423-426.

Tobin, Alexander R. "The Osteopathic Story in California." A speech presented before the Texas Osteopathic Medical Association. May 11, 1972.

U.S. Department of Health, Education and Welfare. Higher Education: Education Directory 1973-4 U.S. Government Printing Office, 1974.

U.S. Department of Health, Education and Welfare. Health Professions Capitation Grants Fiscal Year 1972 DHEW Publications No. (NIH) 75-460. U.S. Government Printing Office, 1973.

U.S. Department of Health, Education and Welfare. Osteopathic Physicians in the United States: A Report on a 1971 Survey. DHEW Publication No. (HRA) 75-60. U.S. Government Printing Office, 1975.

U.S. Department of Health, Education and Welfare. The Supply of Health Manpower: 1970 Profiles and Projections to 1990. DHEW Publications No. (HRA) 75-38. U.S. Government Printing Office, December, 1974.

Wagner, Ralph "A Study of Critical Requirements for Dentists." University of Pittsburgh Bulletin 46 (1950):331-339.

Walsh, John, "Medicine at Michigan State (I): Educators and Legislators." Science 177, 4056 (September 22, 1972):1085-1087.

Walsh, John, "Medicine at Michigan State (II): The Architecture of Accountability." Science 178, 4057 (October 6, 1972):36-39.

Walsh, John, "Medicine at Michigan State (III): Conditioning for Innovation." Science 178, 4058 (October 20, 1972):288-291.

Walsh, John, "Medicine at Michigan State (IV): Osteopaths and Allopaths." Science 178, 4059 (October 27, 1972):377-380.

Weiss, Laura Burstein, and Spence, Ann Bennett. "Osteopathic Medicine." In A Guide to the Health Professions. Reprinted by American Association of Colleges of Osteopathic Medicine. January, 1976.

# APPENDICES

## APPENDIX I:

### SEMI-STRUCTURED INTERVIEW QUESTIONS

Introduction: Introduce the study stating that it is conducted with financial support from the College to the Office of Institutional Research. Explain the reporting procedures will maintain students' anonymity. Ask for any initial questions regarding the nature of the study.

Items 1 and 2: Can you think of two or three situations in your clerkship experience in which you were required to do something whose outcome was bothersome? Please describe the situation, why it was of concern to you, and what was at issue. Could the College have done anything to improve or alleviate the situation?

Items 3 and 4: Can you think of two or three situations in your clerkship experience in which you were required to do something whose outcome you felt very positive about? Please describe the situation and try to expand on why it was a positive one for you.

Items 5 and 6: Based on your first two years of training, do you have any ideas as to improving the transition from the second to the third years; from didactic to clinical settings? What advice to second year students might you have?

Item 7: Do you use OMT? Do you feel that your OMT training was adequate? How could your OMT training be improved?

Item 8: Shifting to an altogether different topic, what have you settled to be in your own mind the differences between what the osteopathic physician does from the allopathic physician?

Item 9: How would you like the osteopathic medical profession to develop in the future?

Item 10: What is your career choice? ... ultimately general practice or specialization? Do you feel the MSU-COM curriculum favors this choice? Is there anything that could be improved in this regard?

Item 11: Where are you going to do your internship? Is there anything the College could do to improve the internship selection process?

Item 12: Is there something that we haven't touched upon that you might like to talk about?

## APPENDIX II:

## SURVEY QUESTIONNAIRE AND SURVEY DATA

At the time of the interviews, short questionnaires were distributed to the interviewees in order to obtain biographical and correlative data. Of the sixty-four members in the August 1975 graduating class, a total of sixty-one students (95% of the class) completed and returned their questionnaires. One transfer student to MSU-COM from the Chicago College of Osteopathic Medicine was deleted from the class profile and two students did not return a questionnaire. The data in some instances are summarized in narrative rather than tabular form.* Percentages for major questions have been determined from the response base.

Question 1 (See Table 1a)

In what areas have you had occupational or organizational experience prior to entry into osteopathic medical college?

a) Experience in medical care setting, e.g., hospital worker, ambulance attendant, clinical laboratory attendant.
b) Experience in "helping" activities, e.g., counselor, playground director, social casework, work with underprivileged children or adults, work with juvenile corrections, Peace Corps, VISTA, etc.
c) Research or technical experience, e.g. lab technician, biologist, engineer, technical aide, research assistant, etc.
d) Teaching experience, e.g., instructor, tutor, graduate assistant, etc.
e) Experience in dealing with the public, e.g., salesman, public affairs officer, receptionist, etc.
f) Unskilled labor, e.g., construction worker, life guard, summer resort worker, farm laborer.
g) Other (specify)

Table 1a

Areas of Occupational or Organizational Experience

| | Male | Female | Total |
|---|---|---|---|
| Medical Care Setting | 27 | 3 | 30 |
| Helping Activities | 19 | 6 | 25 |
| Research or Technical | 28 | 4 | 32 |
| Teaching | 23 | 6 | 29 |
| Dealing with Public | 22 | 6 | 28 |
| Unskilled Labor | 31 | 4 | 35 |
| Other | 8 | 0 | 8 |

*See Section 1 and Section 4, Ch. IV for further data analysis.

Eight students reported other types of work experience such as seminarian (2), journalist (2), radio programmer (1) Russian interpreter (1), pharmaceutical representative (1). There was one no response to this question.

Question 2 (See Table 2a)

Indicate your undergraduate degree:

_____ Major

_____ Minor

Table 2a

Responding Clinical Clerkship Students' Undergraduate Training

| Field of Study | Male | Female | Total |
|---|---|---|---|
| Biology | 12 | 5 | 17 |
| Zoology | 10 | 2 | 12 |
| Psychology | 7 | 0 | 7 |
| Chemistry | 3 | 1 | 4 |
| Biochemistry | 2 | 1 | 3 |
| Engineering | 3 | 0 | 3 |
| Liberal Arts | 2 | 0 | 2 |
| Pharmacy | 2 | 0 | 2 |
| Animal Behavior | 1 | 0 | 1 |
| Botany | 1 | 0 | 1 |
| Combined Sciences | 1 | 0 | 1 |
| Economics | 1 | 0 | 1 |
| Math/Biology | 1 | 0 | 1 |
| Medical Technology | 1 | 0 | 1 |
| Microbiology | 1 | 0 | 1 |
| Natural Science | 1 | 0 | 1 |
| Physics | 1 | 0 | 1 |
| Social Science | 1 | 0 | 1 |
| No Degree | 0 | 1 | 1 |

When asked about their minor fields of study, twenty-four students reported that their minors were in fields that are natural science related. Two students reported minors in psychology, and six students reported minors in various other fields. Twenty-nine students, or 47% of the responding sample, did not answer the question.

Question 2.1

If you have a graduate degree, indicate:

_____ _____

Degree Field of Study

A total of eighteen students reported that they had earned advanced degrees before entering the MSU College of Osteopathic Medicine. These included fourteen masters degrees or 23% of the research sample, and four Ph.D. degrees or 7% of the research sample. All of the advanced degrees earned with the exception of two were in natural science related fields such as microbiology, organic chemistry, pathology, and physiology. Four of the masters degrees are held by females.

Question 3 (See Table 3a)

When did you first learn about the osteopathic medical profession?

Table 3a

When Students First Learned of the Osteopathic Medical Profession

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| Childhood | 13 | 5 | 18 | 31% |
| Teenage | 10 | 3 | 13 | 22% |
| Recent Years | 26 | 1 | 27 | 47% |
| No Response | 2 | 1 | 3 | |

Question 4 (See Table 4a)

Are any members of your immediate family in the osteopathic profession?

a) no
b) yes
If yes, relationship is: _____

Table 4a

Members of Immediate Family in Osteopathic Profession

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| No | 47 | 10 | 57 | 93% |
| Yes | 4 | 0 | 4 | 7% |

The relationship of members of the immediate family in the osteopathic medical profession are: parents (2), brother (1). One student listed uncle and cousin as members of the immediate family. This response is included as an affirmative response.

Question 5 (See Table 5a)

Are there others who influenced you into the osteopathic profession?

a) no
b) yes
   If yes, relationship is:
a) family friend
b) personal friend
c) neighbor
d) aunt or uncle
e) other _____

Table 5a

Others Who Influenced Student into the Osteopathic Profession

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| No | 15 | 4 | 19 | 32% |
| Yes | 35 | 6 | 41 | 68% |
| No Response | 1 | 0 | 1 | |
| If yes, relationship is: | | | | |
| Family Friend | 12 | 2 | 14 | |
| Personal Friend | 16 | 2 | 18 | |
| Neighbor | 1 | 0 | 1 | |
| Aunt or Uncle | 2 | 0 | 2 | |
| Other | 14 | 2 | 16 | |

Clinical clerkship students were allowed to list as many persons as applicable. In the category "Other" are: family physician (6), contact with osteopathic physicians (4), instructors or advisors (5), and M.D. brother (1).

Question 6 (See Table 6a)

Are members of your immediate family in the other medical or health professions?

a) no
b) yes
   If yes, type of profession is:
a) allopathic doctor (specialty) _____
b) nurse
c) nutritionist
d) medical technician
e) other _____

Table 6a

Members of Immediate Family in Other Medical or Health Professions

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| No | 34 | 4 | 38 | 62% |
| Yes | 17 | 6 | 23 | 38% |

Table 6a(cont'd.)

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| If yes, type of profession is: | | | | |
| Allopathic Doctor | 2 | 2 | 4 | |
| Nurse | 8 | 2 | 10 | |
| Nutritionist | 0 | 0 | 0 | |
| Medical Technician | 1 | 0 | 1 | |
| Other | 9 | 4 | 13 | |

Thirteen said they have immediate relatives who are dentists (3), podiatrists (3), optician (1), optometrist (1), pharmacists (2), biomedical engineer (1), funeral director (1), and a medical student in ophthalmology (1). The allopathic doctors' types of medical specialty include: family practice (1), OB-GYN (1), internal medicine (1), and allergist (1).

Question 7 (See Table 7a)

To how many allopathic medical schools did you apply?

a) 0
b) 1-2
c) 3-6
d) 7 or more

Table 7a

Number of Allopathic Medical Schools to which Student Applied

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| Zero | 11 | 4 | 15 | 25% |
| One to Two | 9 | 0 | 9 | |
| Three to Six | 18 | 4 | 22 | |
| Seven or more | 13 | 2 | 15 | |
| At least one or more allopathic schools | 40 | 6 | 46 | 75% |

Question 7.1 (See Table 7.1a)

Of these, how many accepted you? _____

Table 7.1a

Students Granted Admission by Allopathic Medical Schools

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| Not applicable, did not apply | 10 | 4 | 14 | |
| Not Accepted | 22 | 4 | 26 | |
| Accepted by one | 6 | 0 | 6 | |
| Accepted by two | 0 | 1 | 1 | |
| No Response | 13 | 1 | 14 | |
| Total accepted to one or more allopathic schools | 6 | 1 | 7 | 15% |

Question 8 (See Table 8a)

To how many other D.O. programs did you apply?

a) 0
b) 1-2
c) 3-4

Table 8a

Number of Other Osteopathic Medical Schools to which Student Applied

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| Zero | 23 | 5 | 28 | 46% |
| One to Two | 14 | 3 | 17 | |
| Three to Four | 14 | 2 | 16 | |
| Applied to at least one or more osteopathic schools | 28 | 5 | 33 | 54% |

Question 8.1 (See Table 8.1a)

If more than one, names of other D.O. programs are: _____

Table 8.1a

Other Osteopathic Medical Schools to which Students Applied

| | Male | Female | Total |
|---|---|---|---|
| Chicago College of Osteopathic Medicine | 12 | 2 | 14 |
| College of Osteopathic Medicine and Surgery, Des Moines | 9 | 1 | 10 |
| Kansas City College of Osteopathic Medicine | 9 | 1 | 10 |
| Kirksville College of Osteopathic Medicine | 9 | 0 | 9 |
| Philadelphia College of Osteopathic Medicine | 8 | 0 | 8 |

Question 9 (See Table 9a)

Of these, how many accepted you other than MSU-COM? _____

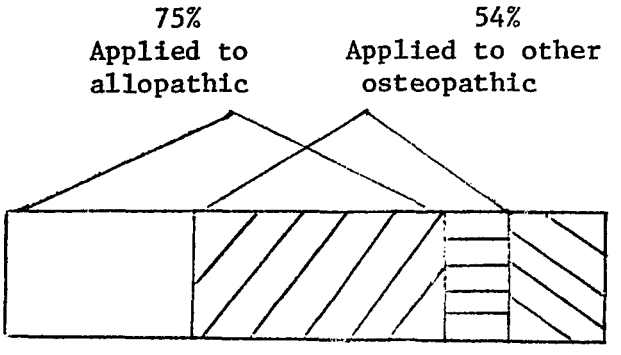
Table 9a

Granted Admission by Other Osteopathic Medical Schools

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| Not Applicable, did not apply | 21 | 5 | 26 | |
| Not Accepted | 13 | 3 | 16 | |
| Accepted by one other | 10 | 1 | 11 | |
| Accepted by two other | 3 | 0 | 3 | |
| No Response | 4 | 1 | 5 | |
| Total Accepted to one or more other osteopathic medical schools | 13 | 1 | 14 | 40%* |

The data from Table 7a through Table 9a is summarized in Figure 1a. Seventy-five percent of the students applied to allopathic medical schools (Groups 1 and 2 combined); fifty-four percent of the students applied to other osteopathic medical schools (Groups 2 and 3 combined); and fifteen percent of the class applied to MSU-COM only.

Figure 1a




APPLICATION PATTERNS

1) Applied only to allopathic schools and MSU-COM

2) Applied to both allopathic, other osteopathic, and MSU-COM

3) Applied only to other osteopathic and MSU-COM

4) Applied only to MSU-COM

*Percentage is determined from the response base of those who applied to D.O. schools (N=30).

The data pertaining to application patterns for the MSU-COM graduating class of August 1975 (See Figure 1a) indicates there are four distinct groups of students. Group 1 or 31% of the class with N=19 are those students who sought admission at M.D. institutions and applied to MSU-COM as the one osteopathic medical school acceptable to them. Group 2 or 44% of the class with N=27 are those students who very much wanted to be a doctor. In their efforts to get admitted at a medical school they applied to both M.D. and other D.O. degree granting institutions. Group 2 is the largest group of students admitted at MSU-COM. For these students, the type of degree probably does not matter. Group 3 or 10% of the class with N=6 is the smallest group in the class. These students wanted to become osteopathic medical doctors. They applied to institutions within the profession and applied to two or more osteopathic colleges. Group 4 or 15% of the class with N=9 are distinct from Groups 1, 2, and 3. These students selectively applied only to MSU-COM and thus wanted to be D.O. doctors trained in Michigan exclusively at MSU-COM.

Question 10 (See Table 10a)

What factors were important to you in selecting MSU-COM? (open-ended)

Table 10a

Factors Favorable to Selection of MSU-COM

| | Group 1 Applied only to allopathic schools and MSU-COM N=19 | Group 2 Applied to both allopathic, other osteopathic, and MSU-COM N=27 | Group 3 Applied only to other osteopathic and MSU-COM N=6 | Group 4 Applied only to MSU-COM N=9 | Total N=61 |
|---|---|---|---|---|---|
| 1) MICHIGAN: location/convenience | 9 | 15 | 6 | 5 | 35 |
| 2) MSU: affiliation with large university | 4 | 14 | 2 | 2 | 22 |
| 3) FINANCIAL: low tuition, scholarships | 3 | 5 | 3 | 2 | 13 |
| 4) MSU-COM PROGRAM | | | | | |
| a. progressive program | 4 | 8 | 1 | 1 | 14 |
| b. three-year curriculum | 1 | 2 | | 1 | 4 |
| c. general practice emphasis | 3 | 1 | | | 4 |
| d. faculty; teaching program | 1 | 2 | | | 3 |
| e. new college | | 1 | | | 1 |
| f. clinical program | 1 | | | | 1 |
| g. general | 3 | 4 | | 1 | 8 |
| (subtotals, items 4a-4f) | 13 | 18 | 1 | 3 | 35 |
| 5) ACCEPTANCE INTO MSU-COM | 2 | 7 | | | 9 |
| 6) OTHER: recommended by others, et cetera | 2 | 3 | | 2 | 7 |
| NO RESPONSE | 2 | 1 | 1 | 1 | 5 |

Students were able to list as many factors as they felt significant. The factors were then arranged into categories as listed in Table 10a. Responses have been differentiated into four groups,

reflecting the type of medical schools to which students applied. These four groups are the same as those in Figure 1a. Group 1, those who regard MSU-COM as the only acceptable D.O. college, list Michigan: location/convenience most often as the only favorable factor in selection of MSU-COM. Group 2, those who applied to both M.D. and other D.O. institutions, most frequently list two favorable factors in selection of MSU-COM: (a) Michigan: location/convenience, and (b) MSU: affiliation with large university.

For students in Group 2 it can be concluded that MSU-COM was selected because it is a medical school affiliated with a large university and located in Michigan. Group 3, those who applied to at least two or more colleges within the D.O. profession, list Michigan: location/convenience as important in selecting MSU-COM. Half of Group 3 list the factor, finances. Group 4, those who only applied to MSU-COM (N=9) rank Michigan: location/convenience most frequently and rank three factors with equal frequency: (a) MSU: affiliation with large university, (b) financial, and (c) other.

Question 11 (See Table 11a)

What is the character of the osteopathic medical practice you now contemplate? (Circle as many as applicable)

a) Individual
b) Partnership
c) Private Groups
d) Hospital Based Groups
e) Public Health
f) Industrial
g) Medical Administration
h) Research/Teaching
i) Industrial Clinics
j) Other (specify) _____
k) Undecided

Table 11a

Type of Practice Contemplated

| | Male | Female | Total |
|---|---|---|---|
| Individual | 12 | 0 | 12 |
| Partnership | 35 | 3 | 38 |
| Private Groups | 23 | 5 | 28 |
| Hospital Based Groups | 9 | 3 | 12 |
| Public Health | 5 | 3 | 8 |
| Industrial | 0 | 0 | 0 |
| Medical Administration | 1 | 1 | 2 |
| Research/Teaching | 10 | 2 | 12 |
| Industrial Clinics | 0 | 0 | 0 |
| Other: International, HMO | 3 | 0 | 3 |
| Undecided | 3 | 3 | 6 |
| No Response | 2 | 0 | 2 |

Question 12 (See Table 12a)

In which size community have you spent most of your life?

a) Rural (less than 9,000)
b) Small City (10,000 to 49,000)
c) Medium City (50,000 to 99,000)
d) Large City (100,000 to 149,000)
e) Metropolis (150,000 or more)

Table 12a

Size of Community in which Student Spent Most of Life

| | | Male | Female | Total |
|---|---|---|---|---|
| Rural | (less than 9,000) | 6 | 3 | 9 |
| Small City | (10,000 to 49,000) | 6 | 1 | 7 |
| Medium City | (50,000 to 99,000) | 8 | 1 | 9 |
| Large City | (100,000 to 149,000) | 9 | 1 | 10 |
| Metropolis | (150,000 or more) | 22 | 4 | 26 |

Question 13 (See Table 13a)

In which size community do you expect you will practice?

a) Rural (less than 9,000)
b) Small City (10,000 to 49,000)
c) Medium City (50,000 to 99,000)
d) Large City (100,000 to 149,000)
e) Metropolis (150,000 or more)

Table 13a

Size of Community in which Student Expects to Practice Medicine

| | | Male | Female | Total |
|---|---|---|---|---|
| Rural | (less than 9,000) | 6 | 2 | 8 |
| Small City | (10,000 to 49,000) | 16 | 3 | 19 |
| Medium City | (50,000 to 99,000) | 9 | 2 | 11 |
| Large City | (100,000 to 149,000) | 7 | 1 | 8 |
| Metropolis | (150,000 or more) | 10 | 1 | 11 |
| Undecided | | 3 | 1 | 4 |

Question 14 (See Table 14a)

In the final section of the questionnaire the students were given a list of possible changes in medicine and medical practice which might take place within the foreseeable future, and were asked to indicate which of those changes they would like to see happen and which changes they felt would happen. No response to this entire section of the questionnaire was given by three students. Thus, the percentages here are based on a total responding sample of fifty-eight students or 91% of the class. Percentages for majority responses appear in brackets.

## Table 14a

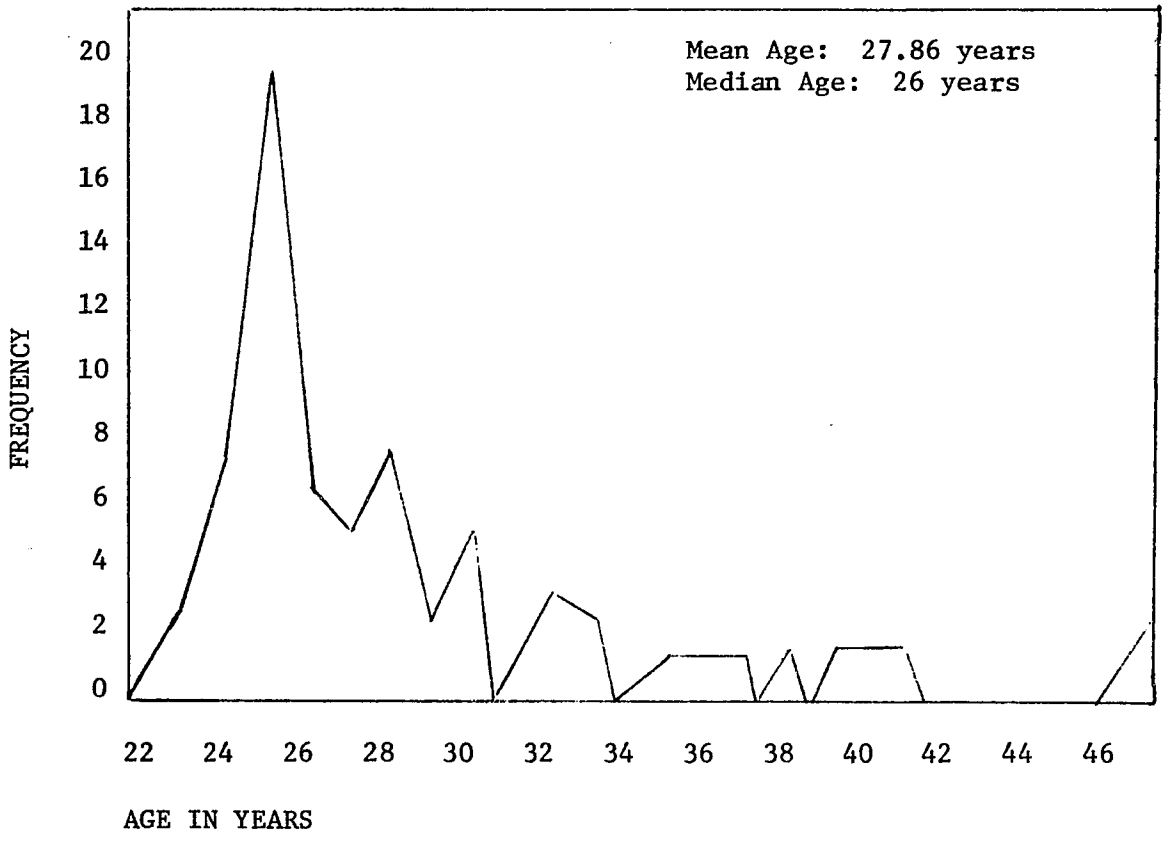
**Possible Changes in Osteopathic Medicine and Medical Practice**

| | Would like to see happen (checked) | | Will happen (circled) | | Would not like to see happen (not checked) | | Will not happen (not circled) | |
|---|---|---|---|---|---|---|---|---|
| | total | % | total | % | total | % | total | % |
| 1) All or nearly all osteopathic physicians will be specialists and the specialties will have divided into sub-specialties. | 5 | 9 | 9 | 16 | 53 | [91] | 49 | [84] |
| 2) All or nearly all osteopathic physicians will work either in group practices or as salaried professionals for large scale health care units. | 10 | 17 | 21 | 36 | 38 | [83] | 37 | [64] |
| 3) All or nearly all medical care will be financed by governmentally sponsored prepaid insurance. | 19 | 33 | 41 | [71] | 39 | [67] | 17 | 29 |
| 4) All or nearly all osteopathic physicians will be subject to public legislation in which limits will be set on the fee an osteopathic physician may charge for such services rendered. | 8 | 14 | 28 | 48 | 50 | [86] | 30 | [52] |
| 5) All or nearly all people, adults and children, will regularly undergo comprehensive medical screening, financed out of public funds. | 27 | 47 | 19 | 33 | 31 | [53] | 39 | [67] |
| 6) Medical physicians, generally, will subscribe less to the view of medicine as the treatment of disease and more to the view of medicine as the manipulation of the social and emotional factors in the lifestyle of the patients; preventive medicine and comprehensive care for patients will be significantly more important functions of the medical physician. | 33 | [57] | 16 | 28 | 25 | 43 | 42 | [72] |
| 7) Osteopathic physicians, typically, will make significantly less use of hospitals as diagnostic and treatment centers. | 6 | 10 | 2 | 3 | 52 | [90] | 56 | [97] |
| 8) All or nearly all osteopathic physicians will have access to computerized diagnosis systems and to computerized sources of treatment selection. | 23 | 40 | 20 | 34 | 35 | [60] | 38 | [66] |
| 9) Many, if not most, osteopathic physicians will devote significantly less time to patient care and significantly more time to supervisory and/or managerial functions; (the supervision of a variety of specialized ancillary personnel engaged in patient care and/or the management of a variety of kinds of health care programs). | 3 | 5 | 10 | 17 | 55 | [95] | 48 | [83] |

At the end of the questionnaire students were asked to specify other changes in medicine and medical practice which they would like to see happen in the foreseeable future. The suggested changes were: more family practice residencies for D.O.'s; a merger between the allopathic and osteopathic professions; osteopathic philosophy put into greater use; more distinctness for the osteopathic profession; and osteopathic physicians as family practitioners and allopathic physicians as specialists.

Data was later obtained regarding the ages of the sixty-four students in the August 1975 MSU-COM graduating class. That data is presented in Figure 2a.

Figure 2a




AGE IN YEARS

Table 15a*

Type of Undergraduate College from which Student Graduated

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| Four-Year Public | 42 | 6 | 48 | 75% |
| Four-Year Private | 12 | 3 | 15 | 23% |
| N/A | | 1 | 1 | 2% |

Table 16a**

| Career Choice | Total | Percent |
|---|---|---|
| 1) General Practice | 25 | 39% |
| 2) General Practice but will seek additional training in GP field | 5 | 8% |
| 3) General Practice but will seek residency later | 4 | 6% |
| 4) General Practice, then internal medicine, ER practice with hospital, or OB-GYN | 6 | 9% |
| (subtotals, items 1-4) | (40) | (62%) |
| 5) Specialization | 12 | 19% |
| 6) Undecided | 10 | 16% |
| 7) Research/Teaching | 2 | 3% |

Table 17a***

Marital Status at Graduation

| | Male | Female | Total | Percent |
|---|---|---|---|---|
| Married | 27 | 3 | 30 | 47% |
| Single | 25 | 9 | 34 | 53% |

*Based on data published by the University's Department of Information Services.

**Based on interview data.

***Based on data from the College's Office of Student Affairs.

## APPENDIX III:

### SEMI-STRUCTURED INTERVIEW QUESTIONS WITH SELECTED MSU-COM FACULTY AND ADMINISTRATORS

Introduction: Explain that the purpose of this interview is to document selected faculty's and administrator's reactions to the student-based data.

Question 1: What are your reactions to the report?

Question 2: What are your suggestions about research activities which would extend some of the issues that students feel need to be examined? other research activities?

Question 3: As department chairman [or director] how do you feel faculty in your department [or administrative unit] could be involved in addressing some of the concerns expressed by students?

Question 4: Are there any additional matters you wish to discuss which would be useful in studying the MSU-COM program?