THE GENERAL PRACTITIONER

A Study of Medical Education and
Practice in Ontario and Nova Scotia

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This book is probably the most definitive and important study and critique of general practice that has yet been undertaken. It was obviously a labor of love for the author, himself a pediatrician, who spent six years at his task.

The study was originally conceived of by the College of General Practice of Canada, and in particular by its Executive Director, Dr. W. Victor Johnston, a former rural general practitioner of many years experience. Financed by more than $160,000, which came from three sources but primarily from the Rockefeller Foundation, the following objectives were listed for the study:

1. To determine the types and the volume of illness treated by general practitioners. . . .
2. To determine how adequately such illnesses are being diagnosed and treated.
3. To study the factors that determine the quality of general practice, including:
   (a) Characteristics of the doctor himself.
   (b) The adequacy of the doctor's training. The study will attempt to evaluate how well present-day medical education prepares doctors for general practice. This will include an assessment of undergraduate and interneship training and of postgraduate courses and facilities for

the continuing instruction of general physicians. It is hoped to recommend improvements in undergraduate and postgraduate training.

(c) The circumstances under which the doctor is working, with special attention to office organization and management, financial aspects of practice, the effect of availability of hospital facilities and consultants, and the effect of climate and geography.

4. To determine, on the basis of the results of the objectives already listed, what kind of general practice is needed by the Canadian people. . . .
5. To examine the relationship of the doctor to his family, to professional organizations, and to the community in which he lives.

Introduction

Dr. Osler Peterson acted as a major consultant to the study and the specific injunction placed on the author was that Dr. Peterson's method was to be used to assess the quality of practice.[1] There was to be a major emphasis on study of quality and of medical education.

Three methods were used during the study. Firstly, an analysis was made of a week's work load of the general practitioner, as recorded by either the general practitioner himself and/or by the general practitioner and the research observer, who was himself a physician. Secondly, a physician member of the research team spent two to three days making direct observations of the physicians studied, and scored the performance of the physicians based on predetermined criteria of quality. The researchers attempted to judge only what they actually saw. It would appear that an excellent attempt was made to keep the standard of observation as unvarying as possible. Thirdly, the doctors studied were subjected to a long and detailed questionnaire, which consisted of 400 questions. Unfortunately, the questions are not reproduced in the book, and there is inadequate information with regard to the methods of pretesting the questionnaire. There is also evidence that the interviews were not conducted in a standardized way. It is a limitation of the study that the skills of the social scientist were not applied in view of the com-

ments made by Peterson and his associates in their work, in which they emphasized the importance of consideration of the physician as an individual: his interests, his motivations, his attitudes and responsibilities toward the profession, his patients, and society in general.[2]

An original intent to study general practitioners in all parts of Canada did not prove feasible, and as a result the studies were confined to Ontario and Nova Scotia. For purposes of the study, the general practitioner was defined as a person who said he was a general practitioner and who indicated that 50 per cent of his work was in general practice. Using this definition and statistical consultants, a stratified sample of 56 doctors was selected in Ontario; stratification was by age and by community size. Of the 56 doctors so selected in Ontario, 51 were found to fit the definition of general practitioner used for purposes of the study, and of these 51, 44 doctors were studied.

In the Nova Scotia portion of the study, quota sampling was used, and this invalidates the statistical analyses of the data obtained from the 42 Nova Scotia doctors.

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To illustrate the heterogeneity of the population studied, 31 of the 86 doctors were born in 1909 or earlier. There was no social class categorization of the doctors studied. The great number of background variables simultaneously studied represented a limitation of the method of sample selection. In this regard, a defect of the Peterson study was repeated.

It is of interest that 40 of the 80 general practitioners from whom the information was available had had academic difficulties at medical school. Only 18 of the 86 general practitioners studied had had more than 24 months of postgraduate hospital training. More than a quarter of the doctors in each province indicated that financial factors had played a role in bringing their training to an end.

Fifty-seven of the 86 general practitioners studied were in solo practice, and 25 of these worked with no office assistance whatever. More than half of the doctors in both provinces used single simple cards as a method of record keeping.

It is distressing to learn that 71 of the 86 doctors studied conducted evening office hours, and that the mean hours of work per week were 52.5 in Ontario and 60.2 in Nova Scotia. Forty-nine of the 86 GPs took six or fewer week ends off per year and 32 of the 86 took two weeks or less of vacation in a year. It is no wonder that many of these doctors came to regard the practice of their profession as a burden.

All of the doctors studied had hospital privileges in one or more hospitals. The majority felt that hospitals should have departments of general practice. The general practitioners studied emphasized that general practitioners should have an opportunity to teach. However, there was no uniformity of opinion about the purpose to be served by a department of general practice in teaching hospitals.

Eighty-one of the 86 doctors studied were members of the Canadian Medical Association, and 31 were members of the College of General Practice of Canada.

Some of the questions used seemed biased. For example: "In particular, are you satisfied with the way in which the CMA is handling the issue of private medical care versus some form of governmental control?" It is difficult for the respondent to give an objective reply when emotionally charged wording is used in a question of this importance. Further, the replies to questions of this sort were described but were not categorized and analyzed. In this important area then, some of the questions seemed to be both badly asked and inadequately analyzed.

The doctors studied emphasized the role of the College of General Practice in preparation for general practice, in postgraduate education, in studying working conditions for general practitioners and in raising their status. The men studied also made interesting comments about the comparative abilities of general practitioners versus specialists, and expressed concerns about the performance of many in their own ranks; they also felt that specialists were better able to influence policy within the profession, that there was a lack of understanding between general practitioners and specialists and that teaching centers tended to have a negative influence on attitudes toward general practice.

The roughly estimated median income of the doctors studied was $13,000 per year. Similar rough median hourly earnings of doctors were about $5.00 in Ontario and under $4.50 in Nova Scotia. Doctors in both provinces earned more per hour if they did surgery. The difference in Ontario was striking.

There was considerable dissatisfaction with both the doctors' own insurance companies and even more with the commercial carriers. However, most doctors thought the majority of patients were satisfied with present arrangements for financing medical care and the great majority did not think another system of paying for medical care would result in higher quality.

The author points out that doctors depend for a livelihood on selling their services, and that for all of a general practitioner's work, one hour of pay should equal another hour of pay. Implicit in the author's comments in this area is the suggestion that the existent fee schedule for payment of doctors is unfair.

The Work of a General Practitioner

Almost all of the general practitioners studied were doing adult medicine, pediatrics, obstetrics, and minor surgery.

It is noteworthy that the general practitioners expressed almost no interest in handling emotional problems or in the field of preventive medicine.

In studying the doctors' work week, the median for the Ontario general practitioners was 74 office calls, 12 home visits, and 29 hospital visits; for the Nova Scotia general practitioners there were 65 office calls, 25 home calls, and 35 hospital visits. The value of any conclusions from reporting of a week's work seem dubious when one considers the way in which the reports were done, and the lack of selectivity in the reporting dates. More meaningful, more accurate, and detailed analyses of the content of practice in North America remain to be done in the future. The book contains no comparison with other studies that have been done, for example, in the United Kingdom.

In assessing the performance of the general practitioners studied, the researchers used a scale for rating quality which totaled 80

points: 30 of these were assigned to history-taking, 30 to physical examination, six to laboratory aids, five to management of therapy, four to office management of obstetrical cases, three to preventive medicine, and two to the handling of records. In addition, the researchers tried a point system with one point assigned for the poor quality practice and five for the excellent quality practice, with two, three, and four points assigned in between. It is noteworthy that in both Nova Scotia and Ontario, there was a correlation of almost 1 between the point system used and the more complex rating scale.

It proved difficult to evaluate the general practitioners' performances in the field of psychiatry and it was the researchers' impression that most general practitioners based their practice on personal experience rather than on professional preparation. Poor patterns of referral to consultants were correlated with poor over-all quality performance scores.

In summary, 33 of the 85 doctors who were scored were found to be performaing satisfactorily, but 52 of the 85 had deficiencies in their performance which either were likely to expose their patients to serious risk, or to raise some doubt about the quality of their performance. These deficiencies were in the fundamentals of clinical medicine. It was specifically in the field of history-taking, physical examination, and simple laboratory investigations in working toward a diagnosis that the above-noted deficiencies were apparent.

Doctors in the older age groups performed less well than did younger ones. Those with lower marks in medical school had poorer quality practices; and there was a significant correlation between the total duration of postgraduate hospital training and the quality of care provided.

Problems of Medical Education and of Medical Practice

In attempting to discover the reasons for the variation in performance, the author indicates that it is necessary to study the structure of medical education and its superstructure, the organization of medical practice. The author advocates better counseling services.

In dealing with the problem of the cost of undergraduate medical education, which he estimated to be at least $14,000 for the general

practitioners studied, Clute recommends studies of the financing and finances of medical students.

The doctors studied expressed great dissatisfactions with their undergraduate training in psychiatry, in social work, in dermatology, in ophthalmology and otolaryngology, as well as in other subjects. While they did not express dissatisfaction with their training in preventive medicine, the deficiencies revealed in their practices showed that their training in this field was inadequate and that they did not have a meaningful understanding of modern concepts of preventive medicine.

Dr. Clute supplies an excellent review of the current literature in teaching versus learning, is critical of the new god called "Research," which frequently results in a lower caliber of teaching, and also expresses concern about the job that inadequately paid part-time medical school teachers can do. He comes out on the side of fewer undergraduate lectures and more tutorials, and points out the need for a critical review of the medical curriculum and of teaching methods. He emphasizes the need to study medical students and to establish multidisciplinary research divisions in medical education within medical schools. It is somewhat surprising that the author does not include in his analysis the implications of at least some of the recent experiments in undergraduate medical education, and their potential effects on the kind of basic doctor that is produced as a result of undergraduate medical education.[3]

The general practitioners made expected general criticisms of their training. There was too much "scut work," there was insufficient clinical work, and too much time devoted to the presentation of rare cases. Only 10 of the 85 doctors who replied to this question stated that their instructors in medical school had prepared them "very well" for the kinds of problems they might meet in handling patients as persons. Most of the general practitioners studied thought that the present training at the undergraduate level plus a year of rotating internship was insufficient for handling social and psychological problems, and two-fifths of the doctors in each province thought this was insufficient preparations for handling physical illness. These expressions of opinion applied both to the younger and

the older doctors. The majority of all the doctors favored at least two years of postgraduate training.

Dr. Clute stresses the need for a longer, major, and better supervised experience in the outpatient department, in which the fledgling doctor would not have too great a volume of work and would have an opportunity to provide continuity of care to the same patients for a period of time. He emphasizes that, in the judgment of the general practitioners themselves, it is apparent the present training does not meet the needs of those being trained. The great majority of the doctors were most enthusiastic about a preceptorship with a general practitioner, and most felt this experience should be provided at both the undergraduate and postgraduate levels.

The author then discusses whether the internship should be an education or a mechanism for exploiting the young doctor through his provision of service, as a cheap source of labor for the hospital. He notes that the Canadian Medical Association, while rendering lip service to the concept of the internship as an extension of medical education, stresses the responsibility of the intern to be available around-the-clock. Dr. Clute suggests that the Association has not really faced the question of whether internship is or is not "a period of indentured servitude," and that the profession as a whole has shown a remarkable lack of interest in the exploitation of interns. The author places the responsibility for solutions to this problem squarely on the doorstep of medical educators.

Dr. Clute points out that society has a responsibility for ensuring that a practitioner is adequately remunerated, but that society must know how much work can be accomplished in a given amount of time by a physician practicing medicine of good quality. For example, how much does a general practitioner earn for history-taking and physical examination, as compared with his earnings for more mechanical procedures? This reviewer has asked the same question.[4]

It is significant that *there was no correlation between quality of practice and the doctors' net annual incomes.*

The gap between professional licensing requirements and the ability of the young doctor to accept professional responsibility is stressed. The author concludes that a reorganization of medical

practice should be undertaken by the profession, so that young doctors could develop increasing responsibility through supervised experience in group medical practice. The senior positions in such groups should be occupied by doctors with specialist qualifications in internal medicine, or by general practitioners who have passed the proposed Fellowship examinations of the College of General Practice of Canada. The author thinks his suggestion of supervised graduated advancement and responsibility differs from the present concept of group practice.

How can this reorganization of practice take place? The author expresses the hope that legislative action pending in Canada will lead to his desired result through decision-making by men of moderation who will calmly consider the relevant facts. To this reviewer, who has been involved in the implementation of a piece of legislation,[5] the question at once sprang to mind: Where are the "moderates" when social conflict begins?

Finally, Dr. Clute attempts to define the areas of major competence of the general practitioner of the future: internal medicine, adult and pediatric, should be the center of his practice. He should also be able to handle "uncomplicated" obstetrics and minor office surgery. The author warns against too much emphasis on what he calls "these new areas of action": comprehensive social and psychological medicine; he feels that the physical part of medicine should be its central core, since persons other than physicians can deal with some of the other areas with which medicine is tending to concern itself.

Conclusions

The study objectives were achieved to a considerable extent.

The types and volume of illness treated by general practitioners were determined only in a fragmentary way. For those illnesses that were observed, the criteria for judging adequacy of diagnosis and treatment were apparently both reliable and valid.

In studying determinants of quality, the characteristics of the men studied were not adequately categorized or analyzed, and the sample selected was too heterogeneous. Attitudes were not studied scientifi-

cally.[6] The information about counseling services was interesting, and the proposal for more adequate counseling useful, but there is little evidence that counseling about career choice has a major bearing on decision-making by either students or medical graduates.

Dr. Clute has achieved his objective of evaluating how well "present-day" medical education prepares doctors for general practice: they are prepared badly, and many of them know it. The author's assessment of training and his recommendations for improvement are interesting and useful. But would they lead to "better" general practitioners *to meet the needs of families?* It is this reviewer's opinion that such general practitioners' scores would be higher based on Dr. Clute's criteria, but the doctors would still be limited in meeting such needs. Knowledge of the blood pressure, the Rhesus-factor, the presentation and position of the fetus, and the contents of the urinary sediment are necessary, but so are the personality characteristics of the unwed pregnant girl, and an understanding of her anxieties, her family interrelations, and the community resources that are available for helping her. *Since we see only what we expect and have learned to see,*[7] repeated discussion of the chemistry of the myoneural junction will not help a student or a doctor to perceive the emotional and social needs of the patient with myasthenia gravis, unless there are also repeated discussions of these needs. Dr. Clute's proposals might produce a doctor with better study scores, but this doctor might still have a narrow and circumscribed role concept. It is for this reason that the reviewer, in his approach to this problem, has attempted to define the "comprehensive" physician,[8] and has noted: "For the practicing family physician, it may be suggested that rational attitudes, *tied to scientific knowledge of both biological and behavioral medicine* and coupled with humanitarianism, may be desirable. Such attitudes tied to knowledge can tolerate with relative equanimity a wide range of diverse kinds of patient behaviour, as well as a wide range of problems presented by dealings with the community, with colleagues, and with the organizations and institutions of medicine. This may be desirable not because the physician is thereby rendered more virtuous, but because the physician can thereby perceive and selectively discriminate between a wider range

of alternatives and hence can deal more effectively with various problems."[9] It is relevant to point out that the most important experiments in "comprehensive" care were not discussed in this book, nor was reference made to the extremely important experience in general practice, at the undergraduate level at the Edinburgh University General Practice Teaching Department.[10] Nor was reference made to the postgraduate training of general practitioners for a Master's degree in General Medicine, such as that carried out by Professor Vuletic and his associates in Zagreb.[11] There seem to be ample grounds for believing that good clinical acumen can be combined with a widened role concept. We need to look more closely at the results of the experiments in places like Edinburgh and Zagreb, to see whether we can produce a new kind of preventive and family-oriented specialist in community medical care, who will be the general practitioner of the future.

In assessing the circumstances under which the general practitioner is working, Dr. Clute has highlighted the deficiencies of badly organized practice, both solo and shared, and has stressed the inequities of the existent fee-for-service fee schedules which are the sacred cows of the North American medical profession. However, it appears to this reviewer that Dr. Clute has approached the reorganization of health services in an unrealistic way, in laying emphasis on the emergence of moderates who will effect such reorganization. He has not discussed the role of the consumer and the major impact that consumer-sponsored group practice and alternate ways of paying doctors have had on quality of service.[12] Nor has he discussed the effect of internal audit of quality within group practice on the performance of the individual doctor; nor has he reviewed the much less expensive and perhaps just as reliable and valid assessment of quality of office performance that has been evolved by Morehead and her associates, in the Health Insurance Plan.[13]

Nevertheless, Dr. Clute has produced an important study, and an important and at times brilliant essay on problems of medical education and of medical practice. It is to the credit of the College of General Practice that the study was made, and that Dr. Clute was given the freedom which is vital for a serious research person work-

ing in a sensitive area. This book is the best one on problems of general practice that has yet been written.

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REFERENCES

[1] Peterson, Osler L., et al., An Analytical Study of North Carolina General Practice, *Journal of Medical Education,* 31,12 (Part 2), December, 1956.

[2] ———, op. cit., p. 144.

[3] Lee, Peter V., MEDICAL SCHOOLS AND THE CHANGING TIMES, Evanston, Illinois, Association of American Medical Colleges, 1962.

[4] Wolfe, Samuel, The General Practitioner and His Use of Health Examinations in Preventive Medicine, *Medical Care,* 1.2:84–87, April–June, 1963.

[5] Acker, Murray S., et al., The Saskatchewan Story: A Review and Prospect, *American Journal of Public Health,* 53, 717–735, May, 1963.

[6] Katz, Daniel, The Functional Approach to the Study of Attitudes, *Public Opinion Quarterly,* 24, 163–204, April, 1960.

[7] Lippman, Walter, PUBLIC OPINION, New York, The Macmillan Co., 1922, 1960.

[8] Wolfe, Samuel, Talking with Doctors in Urbanville: An Exploratory Study of Canadian General Practitioners, *American Journal of Public Health,* 53, 631–644, April, 1963.

[9] ———, Talks with Doctors: 1, pp. 33–34, September 1961 (mimeographed at the University of Saskatchewan).

[10] Scott, Richard, Education and Training of the Physician for Family Practice, *Medical Care,* 1, 117–132, April–June, 1963.

[11] Vuletic, Ante, Postgraduate Training of General Practitioners for a Master in General Medicine, Report of Conference, International Medical World Conference on Organizing Family Doctor Care, London, 1962.

[12] Dearing, W. Palmer, Developments and Accomplishments of Comprehensive Group Practice Prepayment Programs (Monograph), Washington, D. C., Group Health Association of America, 1963.

[13] Daily, Edwin F., and Morehead, Mildred A., A Method of Evaluating and Improving the Quality of Medical Care, *American Journal of Public Health,* 46, 848–854, July, 1956.