Professional Graduate Studies in Chiropractic

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Introduction

Over the past three decades, chiropractic has been accorded an increasing degree of acceptability, not only at the level of patients, but also at the more general level of societal approval.

During the same period, there has been a revolution in chiropractic education with a move from private proprietary schools to the establishment of not-for-profit, fully accredited colleges. In this period, the educational programmes have come to duplicate those of the other health disciplines and the students are drawn from the same pool of university trained candidates for the health sciences.

With each political and educational achievement has come new opportunities, and new responsibilities. Nowhere is this more obvious than in the area of research. For most of its history, chiropractic has lacked the educational and physical facilities necessary for a sound research programme. While the resources of the profession have allowed it to establish accredited undergraduate teaching institutions, they have not been sufficient to build and fund the elaborate graduate and research institutes enjoyed by the other health sciences. Although chiropractic research is presently stronger than at any time in its history, and it can point to significant achievements, it is modest in comparison to the other health professions. Relative to other *undergraduate* teaching institutions, however, the chiropractic colleges are much more active in research and their record is one of considerable achievement. The difference lies in the fact that the other health professions all possess either graduate schools or research institutes, and it is in these and not in the undergraduate schools, that the majority of research is produced. Further, this situation exists at a time when chiropractic is being confronted politically with an increasing demand to substantiate, through research, its therapeutic claims and to validate through its educational programmes its privilege to practice certain modalities of care. These concerns are coalesced into a demand for chiropractic to substantiate its claim to be a health *discipline* as opposed to a health practice. The province of Ontario, which is presently conducting a Health Professions Legislative Review, involving all the health profession, has established as a criterion for self regulation the following:

"The members of this profession must call upon a distinctive, systematic body of knowledge in assessing or treating their patients, and the core activities they perform must constitute a clear, integrated and broadly accepted whole."[1]

In essence, the profession must be able to establish itself as a distinct health discipline. Such a task is different both in magnitude and kind than merely demonstrating an educational programme for the education and training of a practitioner, and different again from demonstrating through the patient population the empirical efficacy of patient care.

A discipline not only implies the existence of a *body* of knowledge (systematic, coherent, consistent and compelling) in addition to a *set* of practices derived from that knowledge, it also entails the expansion of knowledge, the creation of knowledge and the dissemination of this knowledge. While the latter involves teachers, the creation of knowledge requires scholars, that small group of men and women who, through active engagement with the fundamental problems of their subject matter, contribute to our understanding of the phenomena.

Such scholarship embraces scientific research as generally understood, and a whole range of reflective activities that are much broader than the narrow confines of science.

Graduate institutes are not only more focused on scholarship than undergraduate areas, but evidence of active scholarship is a criterion for continuing appointment of a faculty member and for a student to graduate from such an institute. It is not surprising that graduate schools, graduate centres and research institutes produce the bulk of scholarship within the system of higher education.

A somewhat chilling fact emerges therefore when we acknowledge that not one graduate centre or research institute exists in chiropractic anywhere in the world.

A Professional Graduate Programme

It is important to distinguish between a graduate school and a graduate centre, at least as these are traditionally conceived. For the most part, a graduate school consists of those programmes leading to a graduate degree. These are by definition *research* degrees (e.g. MA, MSc, Ph.D), whose purpose is to train scholars who are capable of independent research. Such degree programmes usually have a specified undergraduate course. Graduate programmes in centres and institutes, however, frequently do not have a specified undergraduate base (e.g. the MBA). The picture is complicated by the fact that many graduate schools also house professional graduate programmes, although this has on occasions been problematic. In 1980[2], the University of Toronto established a Decanal Committee on Graduate Professional Education to investigate some of these problems. Although clear cut distinctions are difficult to make, they concluded that traditional graduate programmes and graduate professional programmes can be distinguished in terms of their primary and secondary goals.

"From this point of view, professional programmes are those whose students are preparing for careers of major public impact, with a co-existing, secondary intention of improving understanding and quality of service. In contrast, academic programs are those designed to prepare students for independent research, although for these a subsidiary goal is the expectation that graduates will make important contributions to the public good."[3]

This position recognizes that the primary goal of the professions is to provide service to the community. All graduate programmes consist of a mix of research and service, and can be conceived to be on a spectrum with the professions at one end and the traditional academic disciplines at the other.

In conclusion, therefore, while graduate professional pro-

grammes are directed to preparing the student for membership in the community of scholars, they are primarily directed to developing practitioners.

The balance between service and research poses a problem for all graduate programmes. To emphasize the former at the cost of the latter would turn graduate schools into polytechnics; while to emphasize the latter to the exclusion of the former would create **"at best a research institute and at worst a sterile library of unread books."**[4]

The need in chiropractic is for a professional graduate centre whose primary focus is service, but with a very strong secondary focus on research. Those wishing to pursue a research degree should pursue a university based graduate degree which for the foreseeable future, chiropractic cannot offer and with which we cannot currently compete.

Programmes

Professional graduate programmes, although not leading to a research degree, are programmes offered at the level of a master degree. They are not doctoral programmes which are research based degrees. A professional programme is usually for two years and for the most part does not lead into a doctoral programme. In the health sciences, they usually prepare the student for eligibility for professional college examinations (e.g. the Royal College of Surgeons).

Professional programmes are intended usually to prepare students for more effective practice and for the most part, are very formally organized with a high emphasis on structured course work. Usually this reflects the extensive knowledge base thought to be necessary to practice. It is important, however, to stress that the level of such courses must be advanced and must contribute to growth of the students as practitioners. Furthermore, it must inculcate a critical perspective in the students who in their practice will apply critical concepts, be conversant with the current literature, and be able to synthesize both into modes of practice. Although such students may not go on to be researchers, they must be sufficiently educated in research methodology to be able to critically assess and evaluate the research literature. That is, they must at least be literate in matters of research.

The type of graduate programme being envisaged already exists at CMCC in the form of the two residency programmes (clinical sciences and roentgenology) and one non-residency programme (sports science). The Clinical Science programme received an external review in 1985.

The committee concluded: **"having reviewed the history of the programme, and cognizant of the problems . . . , it was the opinion of the committee that this is not only a unique programme in chiropractic, but in many respects an outstanding one."**

This programme already has the elements described above for professional programmes. It has a major focus on clinical experience but also includes a research perspective and experience.

A Centre

In a graduate centre there are at least two possible ways of constructing the programmes. The centre could simply offer a series of discrete residency programmes of the sort, currently offered at CMCC. A second approach is to build in some programmatic integration. This can be done by identifying a core programme that all residents must follow with the balance of the programme concentrating in set areas (see diagram I). The advantage of the integrated model is that it forces the centre to identify what should be core to all chiropractic sciences and allows some savings with regard to faculty and programme duplication. It has the added advantage of bringing together the student in the various streams. The present programme in roetgenology is an example of the weakness of the discrete programmes containing as it does very minimal experience in clinical practice other than experience in roetgenology. In one sense the residents become roetgenologists and stop being clinical chiropractors.

Many of the programmes outlined in Diagram I will be residency programmes. However, there is an urgent need in the profession for non-residency programmes and the sports science programme represents a response to that need. The programmes as conceived above resemble those currently offered in the Masters of Health Science (MHSc) offered in Community Health at the University of Toronto. In this programme, there are some eight distinct streams (e.g. occupational health, epidemology, health promotion, health administration, etc.). These streams are brought together in core courses which each student must complete irrespective of his/her concentration.

Faculty

For the programmes already in place, a College such as CMCC has the required faculty. Furthermore, through its faculty cross appointed from the universities, it does have available an extremely talented pool, particularly in the basic sciences. This type of adjunct appointment works extremely well in graduate and research centres, particularly since much of the required expertise for professional programmes is to be found outside of the university. In the third core course in the MHSc programme, out of six professors, only one is appointed from the faculty of community health. It is very common in such programmes to appoint persons from government departments, industry and health institutions. Most of these adjunct professors are not remunerated.

There is a virtually untapped resource pool in chiropractic, the field practitioner. Usually, this is not a good source for our undergraduate teaching staff since many are available at inconvenient times, are not experienced classroom teachers and find it difficult to operate within the very strict confines of undergraduate teaching. At the graduate level, however, many of these problems disappear. Because the number of students is much smaller, it is easier to schedule around the availability of the professors. Further, since much of the teaching is one-

on-one and is clinical, it does not involve the lengthy preparation of a full semester lecturing course. There already exists a pool of fellows who are not currently active in education.

Last but not least, at this level the emphasis is on learning rather than teaching, and particularly on self directed learning by the student.

The problem here, as elsewhere, is to ensure that the standards set for a faculty appointment are those of quality. However, the criteria for appointment to a professional graduate programme are distinct. Basically four criteria should be utilized:

1 **Exemplary practice** – as evidenced by references from colleagues and former students.
2 **Innovation in practice** – as evidenced by publications of a general nature, perhaps including newspaper references and at least an ongoing assessment of practice results. Professional scholarship, in the form of publications in referred journals, books that are widely used or invited lectures to professional societies, may be considered evidence of innovation in practice.
3 **Peer acknowledgement** – at a superior level. This would include membership on important advisory bodies.
4 **Public impact** – as evidenced by references from senior level consumers.

In essence, these amount to creative professional achievements and not traditional scholarship as assessed by publications. This does not mean that traditional criteria cannot be used where appropriate but it does recognize that an individual may be appointed simply because he/she is an exemplary practitioner. It is also clear that peer recognition plays a significant role in this process. These individuals must set and maintain impeccable ethical standards.

In establishing the qualifications for appointment, the process should be no less rigorous for professional appointments than for academic ones and the documentation should be just as complete. It is also essential that those seeking appointment recognize that creative professional achievement must be substantiated by the candidate, and be no less than those using scholarship as the basis for appointment.

The type of appointment given, however, is more problematic since creative professional achievement does not readily lend itself to the establishment of progressive criteria used to distinguish lecturers, assistant professors, associate professors, full professors. One solution is simply to appoint persons as adjunct professors.

The existence of a graduate center will have a direct impact on the undergraduate teaching faculty. It should be made clear, however, that undergraduate teaching and length of service are not acceptable criteria for appointment to a graduate programme, although the existence of a graduate programme does provide a status for faculty to aspire to. It is the challenge of graduate teaching that is more likely to contribute to the intellectual and academic development of a faculty member (to achieve the upper reaches of their discipline in the terminology of CCE). The reason for this is that graduate programmes operate at the cutting edge of the discipline and graduate students represent a greater intellectual challenge than their undergraduate counterparts, because their knowledge base is presumably more extensive. Just as it is more difficult to play at the NHL level than at the OHL level in hockey, and requires more skill and demands more of the player, so it is more difficult to teach at the graduate level.

Research

Keeping in mind that the primary function of the programmes is not research, the programmes would contain a strong research thrust. In fact the present residents already conduct and publish original research. In the Canadian context, it is the fellows who have gone on to create a cadre of active researchers and they have been the most prolific group with regard to publishing. In a recent article Bland and Schmitz (1986)[4] document the characteristics of the successful researcher. Their focus was on family medicine, which is an area not generally considered strong in research (and, in fact, an area rather resembling chiropractic). They note:

"The primary need in family medicine is to build the academic base of family medicine through research . . . Family medicine can no longer justify its existence on the basis of health manpower needs . . . It must establish itself as a science whose research undergirds the practice of family medicine and contributes, as do other medical disciplines, to knowledge about health and disease."[5]

Their study contains two important conclusions: First, neither money nor physical facilities were good predictors of active research. Second, "of all the factors that affect research productivity, none is as powerful as the work place . . . Faculty who come to productive surroundings produce more there than they did before they arrived, and more than they will later if they move to a less productive environment."[6]

In essence, therefore, to become a productive researcher the student requires prerequisite knowledge of the area, skills in research methodology, academic values and attitudes, a supportive environment, and advisors/mentors with specific responsibility for monitoring the students' progress. They conclude **"although research knowledge and skills are essential for a successful researcher, they are insufficient alone. Especially in a relatively new discipline, researchers need time to develop, and they need role models and conscious socialization to academic values and attitudes."[7]**

In the context of chiropractic, there is a very rampant myth that the only thing lacking is money and facilities. This is a very dangerous myth since it has prevented chiropractors from responding adequately to their research responsibilities. Firstly, the profession has seemed able enough to find millions of dollars to purchase new campuses and to build new educational clinics (some $50 million in the last ten years alone). Secondly, what is needed, is a system by which researchers are constantly produced (an apprenticeship system), not simply buildings.

In a paper for the Ontario Council of University Health Sciences on research needs (1980) prepared by the author, it was stated "(research) personnel in all its forms is possibly the major problem for the Health Sciences." It went on to argue, however, that while education programmes were needed to develop research personnel **"These educational programs must be integrated with the clinical and residency programs to ensure that the persons are able to obtain a clinical/research mix in their education."**[8]

While professional graduate programmes are not strictly research programmes, they are, in fact, the ideal setting for the clinical/research mix so desperately needed in chiropractic. They ensure that the research priorities do not lose touch with the service obligations. If one examines the characteristics described for successful researchers, and then examines our present residency programmes, it becomes obvious that most of the elements are already in place. What is lacking is a critical mass of graduate students needed to create the supportive environment. In chiropractic, much attention has been paid to buildings and too little to people. Not only has CMCC always managed to find positions in outside institutions for our researchers, the truth is that it has not been possible to respond to all the opportunities because of a lack of personnel.

As presently organized, our Research Division is one of the undergraduate academic divisions. The only undergraduate activities embraced by the Division, however, are the research courses taught in the undergraduate programme (two such courses) and the research project required for graduation. All of its other functions pertain to faculty research activity i.e. graduate activity. As mentioned earlier, undergraduate teaching programmes are not traditionally seen as productive environments for research activity and CMCC might actually be amongst the most successful institutions in combining the two. However, it is very unlikely to be much more successful than it presently is.

Funding

It is clear from the regulations of CCE that no undergraduate tuition fees may be used for a graduate centre, so that any funding must be separate from an operational budget of a chiropractic college. While this is a strange regulation, which totally ignores the great benefit to be derived for the undergraduate programme from the existence of a graduate one, it is a reality that must be accommodated.

There would be required two types of funding, capital and operational.

There are at least four distinct sources of money:

1 the profession
2 corporations
3 the federal and provincial government
4 continuing education

1 The Profession

Fund raising efforts are always enhanced by raising a building. There are many chiropractors who would support a graduate centre. It is also noteworthy that when chiropractors feel it is important enough, they will give. One has only to review the building programmes of North American chiropractic colleges in the last decade including the establishment of several new colleges, to see that chiropractic does have the resources to build a graduate centre.

2 Corporations

This is a completely untapped source for chiropractic, but until now we have had nothing to go to them with. Given that 80% of the work force will lose time off work through back problems, a centre for studies in back problems and therapies has an intrinsic self interest. Furthermore, chiropractic already has a good record with regard to the efficacy of care with respect to time and cost. If we can also show a campaign in which chiropractors are giving, we would have a greater chance of success.

3 Government

To date, there has been no mechanism in Canada for either the federal or provincial government to fund us. Our very success in funding our own college mitigates against us, since they know we will survive without any help from them. Again, a graduate centre focusing on manipulative therapy and research related primarily to the back and functional pathologies, might have a chance. It certainly fits in well with the type of institution or centre they currently fund (e.g. the newly completed research building at the Faculty of Dentistry, University of Toronto funded by the Ontario Ministry of Health). It is the unusual that the government has difficulty funding, so if we could fit into an existing category, we would have a greater chance of success. The Federal government has in the past made capital grants to the health sciences (e.g. the new School of Optometry in Ontario). An attractive alternative would be to seek a matching grant. In the U.S. of course the situation would be different.

4 Continuing and Postgraduate Education

As designed, a centre could house the continuing education programmes. If successful, these programmes alone could fund a graduate centre in terms of operating funds. There are already chiropractic colleges that earn considerable sums (some $700,000 annually) from their programmes. Further, some of the non-residency graduate programmes such as sports science can themselves generate considerable revenue for a college. By restricting the number of residency stipends, it would also be possible to earn tuition fees from graduate programmes. The number of foreign applicants to our programme this year has established that there is a market.

Because of the importance of continuing education in generating operating revenue, a centre as proposed would allocate considerable physical facilities to this area. Once built, they would be available for the undergraduate programme during the week.

Conclusion

A graduate centre would be a venture into the unknown for chiropractic. To that extent, it requires an act of faith on the part of the profession. This is no different from the act of faith that, in Canada, gave us a college in 1945, gave us a new college in 1968 and took us into CCE in 1978. Each step was fraught with financial difficulties, opposition, and problems barely discernible when the steps were first contemplated. Many of the earlier graduates of the College worry about the commitment of the recent graduates and whether they will continue to support the College. In the area of philanthropy, people are moved more by a vision of what **can be** achieved, than what **has been** achieved, no matter how noble that achievement. The recent graduates have yet to face this test, have yet to have the opportunity to be builders. Will they be given the opportunity?

One question that has not been addressed in this document is, why now? The answer to this is largely political. As noted earlier, chiropractors can no longer avoid the responsibility of substantiating their claims through research. Further, those following the literature will know that physiotherapy has already stated a claim to manipulation, has moved to establish graduate programmes, and is already out-researching and out-publishing chiropractic. Since they now established in universities, and because they have the backing and support of the most powerful group in the health field (medicine), physiotherapy presents a formidable challenge to chiropractic.

As we ourselves seek university affiliation, our case would be enhanced by the existence of a graduate centre. If we do not have a centre prior to affiliation, it is unlikely we would obtain one in the near future. Nursing has already been in the universities for over a decade, and to date no graduate nursing programme exists in Canada.

The decision to allow graduate programmes is not within the perview of individual universities, but within that of Provincial bodies such as the Ontario Council of Graduate Studies (OCGS), and given the present financial hardships being experienced by the universities, any new programmes are likely to be strongly resisted.

"Let us, then, be up and doing with, a heart for any fate, still achieving, still pursuing, learn to labour and to wait."
Longfellow

References

1 Criteria for Self-Regulation – Health Professions Legislative Review – August 1985
2 Report of the Decanal Committee on Graduate Professional Education – University of Toronto – April 1981.
3 *Ibid* p. 3
4 Bland, C.J.; Schmitz, C.C. – Characteristics of the Successful Researcher and Implications for Faculty Development – Journal Medical Education 61, 22–31, 1986.
5 *Ibid* p. 22
6 *Ibid* p. 27
7 *Ibid* p. 30
8 Research Personnel Support in Ontario – January 1981 (Ontario Council of University Health Sciences – paper presented to the Council of Ontario Universities).

A CALL FOR PROFESSIONAL PAPERS TO BE DELIVERED AT THE SEVENTH ANNUAL CONFERENCE ON CHIROPRACTIC HISTORY AT NORTHWESTERN COLLEGE OF CHIROPRACTIC, BLOOMINGTON, MINN. JUNE 6, 1987

Practitioners, students, laypersons, and professionals in the fields of medical and social history are invited to submit papers to be read before the annual Conference on Chiropractic History to be held at the Northwestern College of Chiropractic on June 6, 1987.

The conference is being co-sponsored by the Association for the History of Chiropractic and Northwestern College. Preliminary information about the conference sessions and the business meetings of the Association will be announced in early 1987.

Those presenting papers should submit an abstract of their research in an area relevant to the history of chiropractic, with original conclusions based upon other published work or oral history interviews, with appropriate documentation and footnotes. The manuscript style of *Chiropractic History* should be followed. Emphasis should be on historical (post-1800) rather than sociological or clinical topics.

Prospective contributors will be sent the AHC *Guidelines for Journal References*. These guidelines *must* be followed. Papers accepted by the Committee on Publications become the exclusive first publication rights of the AHC for *Chiropractic History*. Subsequent rights revert to the author. Reprint rights are given only for the text as published in *Chiropractic History*, or an approved excerpt. *Chiropractic History* is one of two journals in the profession indexed by the National Library of Medicine.

There is a 15-page maximum length for papers, which will be reviewed by a publication committee of the AHC, and oral delivery at the conference will be limited to 30 minutes in time. The papers accepted will be published in the 1987 number of *Chiropractic History*, with preference given to those delivered at the conference by their authors.

Titles and abstracts should be sent to the chairman of the Publications Committee: Mr. Russell W. Gibbons, 207 Grandview Drive South, Pittsburgh, Pa. 15215. They should be received by Jan. 2, 1987. The final manuscript form in two copies, typewritten and double-spaced, and correctly referenced, should be received by the committee chairman no later than April 2, 1987.

Inquiries about the seventh annual Conference on Chiropractic History, or Association membership should be addressed to the AHC at 4920 Franklord Avenue, Baltimore, Md. 21206.