INTRODUCTION

BACKGROUND

This is a summary explanation of why this Conference on Patient Examination, Assessment and Diagnosis in Chiropractic Clinical Education was held, who attended, the program, the results, and why this event remains significant for the profession.

The meeting was planned by the World Federation of Chiropractic (WFC – www.wfc.org), whose members are national association of chiropractors in 80 countries, and the Association of Chiropractic Colleges (ACC – www.chirocolleges.org), whose members are chiropractic schools internationally. It was co-sponsored by the US National Board of Chiropractic Examiners (NBCE – www.nbce.org).

The WFC and ACC had held two previous educational conferences, on Philosophy in Chiropractic Education in Fort Lauderdale, Florida, USA in November 2000, and on Chiropractic Clinical Education in Sao Paulo, Brazil in October 2002. The Sao Paulo Conference resulted in a number of consensus statements about clinical education which can be found in Appendix D to these Proceedings.

One of these statements, Consensus Statement 4, Content of Clinical Education, provided the subject of the Toronto conference. To quote this:

"With respect to patient examination, assessment and diagnosis, there is a wide variance in methods taught and practised, and there would be value in a conference of a similar nature to the current one seeking a consensus that would promote greater consistency in chiropractic education and practice in this area."

Accordingly, the Toronto conference reviewed patient examination, assessment and diagnosis in chiropractic education and practice, and in particular:

- How the subjects are taught in different schools presently.
- Innovations and challenges, and
- A more standardized approach to the assessment of patients in chiropractic education and practice.

Dr. Frank Zolli, Dean, College of Chiropractic, University of Bridgeport, Connecticut, USA and Dr. Barry Lewis, Lead Clinical Tutor, Anglo-European College of Chiropractic, Bournemouth, United Kingdom and President, British Chiropractic Association, were chosen as the Program Directors and led an Organizing Committee whose other members were Dr. Al Traina, President, Northwestern Health Sciences University, Minneapolis, Minnesota, USA, Dr. Jean Moss, President, Association of Chiropractic Colleges and Mr. David Chapman-Smith, Secretary-General, World Federation of Chiropractic.

ATTENDANCE

The names and addresses of registrants for the conference are listed in Appendix E at the end of these Proceedings. The chiropractic educational programs represented at the conference are given in Table 1. Significant aspects of attendance were:
There were over 100 delegates representing 29 schools/programs in 11 countries. This meant that the majority of recognized chiropractic educational institutions worldwide were represented, many by 2 – 4 members of the clinical faculty.

Other organizations represented included the accrediting agencies for Australasia, Canada, Europe and the USA and their international agency The Council on Chiropractic Education International (CCEI); examining and licensing bodies from Europe and North America; and major national associations from various world regions.

Table 1
List of Chiropractic Educational Programmes Represented

Australia
Macquarie University
Murdoch University

Brazil
Centro Universitário Feevale
Universidade Anhembi Morumbi

Canada
Canadian Memorial Chiropractic College
Institut Franco-Europeen de Chiropratique
Université du Québec à Trois-Rivières

Japan
RMIT University Japan Unit

South Africa
Durban Institute of Technology

Sweden
Scandinavian College of Chiropractic

Switzerland
Swiss Chiropractic Institute

United Kingdom
Anglo-European College of Chiropractic
University of Glamorgan

United States of America
Cleveland Chiropractic Colleges-Kansas and Los Angeles
Life University
Life Chiropractic College West
Logan College of Chiropractic
National University of Health Sciences
New York Chiropractic College
Northwestern Health Sciences University
Palmer Center for Chiropractic Research
Palmer College of Chiropractic
Palmer College of Chiropractic Florida
Parker College of Chiropractic
Sherman College of Straight Chiropractic
Southern California Health Sciences University
University of Bridgeport, College of Chiropractic
Western States Chiropractic College

In summary, the right people were present to discuss current challenges and innovations in patient examination, assessment and diagnosis in chiropractic education and practice, and to develop a consensus on how to strengthen patient assessment and produce greater consistency for the benefit of patients and the profession.

PROGRAM – GOALS, METHODS AND CONTENT

A complete description of the goals of the meeting and the methods employed appears in the notice of the conference (see Appendix C). The detailed content appears in the program (Appendix A).
Methods included:

- **Lectures. Invited presentations from acknowledged experts in key areas.**

- **Presentations by those responding to a Call for Abstracts**. Many short presentations chosen from best responses to an open Call for Abstracts.

- **Discussion and debate**. Widespread opportunity for interaction between the participants was a key to the success of the meeting, and this interaction was through the use of panels and allocation of much time for questions and answers.

- **Development of consensus statements**. From the commencement of the conference a representative panel began drafting consensus statements that were then reviewed, amended and agreed in the final session of the conference. Members of the panel were Program Directors Dr. Frank Zolli and Dr. Barry Lewis; Dr. Ricardo Fujikawa, Program Coordinator, Feevale University, Novo Hamburgo, Brazil; Dr. Charmaine Korporaal, Senior Lecturer, School of Chiropractic, Durban Institute of Technology, South Africa; Dr. Gerard Clum, President, Life Chiropractic College West, Hayward, California, USA and 1st Vice-President, World Federation of Chiropractic, and Prof. Stefan Pallister, Program Leader, School of Chiropractic, Murdoch University, Perth, Australia.

With respect to the structure and content of the program:

- **Day 1.** Session 1 on Day 1 featured speakers from clinical practice, explaining to college representatives the new demands in the areas of patient assessment and diagnosis faced by the chiropractic profession in rapidly changing health care systems. The conference heard from Dr. William Morgan, Head of the Chiropractic Unit at the National Naval Medical Center in Bethesda, Maryland, USA, Dr. Robert Haig, Manager for Government and Professional Relations, Ontario Chiropractic Association, Canada, and Dr. Philippe Druart, President, European Chiropractors' Union, and a senior practitioner from Belgium. Dr. Lewis and Dr. Zolli then presented the results of a patient survey in college clinics in the UK (AECC) and the USA (Northwestern).

  Sessions 2 to 4 reviewed specific aspects of general patient assessment as taught in chiropractic schools around the world – history taking and general physical examination (Session 2), orthopedic and neurological tests (Session 3) and laboratory examinations and imaging (Session 4).

- **Day 2.** Session 1 dealt with language issues – for example whether use of the word *diagnosis* is now accepted in all chiropractic education (it is – see the consensus statement on that point – Statement I2, Appendix B), whether students should be taught that the term *manipulatio*n may be used interchangeably with the term *adjustment* where felt appropriate in interprofessional communications (it can) and whether students should be taught to understand, respect and use both the term *subluxation* and *joint dysfunction* (they should). See the consensus statements covering these matters (Statements II 7 and III 2).

  Sessions 2 to 4 then dealt with specific assessment of subluxation/joint dysfunction. During the afternoon sessions, held at the Canadian Memorial Chiropractic College, panellists then conference participants discussed video presentations of assessment of standardized patients with cervical spine (migraine) and lumbar spine (back and leg pain) problems.

- **Day 3.** Session 1 dealt with assessment of muscle dysfunction in chiropractic education and practice. Sessions 2 and 3 dealt with current methods of assessing competency in

the fields of patient examination, assessment and diagnosis, and Session 4 was devoted to the drafting of and agreement on consensus statements.

A practical illustration of how the conference worked, was the language issue regarding use of the word *diagnosis*:

a) In Session 1 on Day 2, three representative speakers were asked to address the following question:

b) Is the use of the word *diagnosis* a continuing problem given the ACC Paradigm, accreditation requirements, legal responsibilities and current practice?' These were Dr. David Koch, VP for International Affairs, Palmer College of Chiropractic, Dr. Randy Beck, Dean of Basic and Clinical Sciences, New Zealand College of Chiropractic and Dr. Joseph Brimhall, President, Western States Chiropractic College.

c) Following their presentations there was audience discussion for approximately 30 minutes.

d) The representative panel that was preparing draft consensus statements then prepared a statement thought to reflect the discussion. This was then reviewed, amended and agreed during the final session, yielding this consensus statement:

"Introductory Matters"

2 (a) It is agreed that the responsibility to diagnose is an essential part of the practice of chiropractic, for reasons that include patient protection, an appropriate clinical investigation in primary contact practice, patient referral where necessary and assurance that patients are afforded the most appropriate care possible.

For a second and final illustration, consider the subject of soft-tissue assessment in chiropractic education and practice.

In Session 1 on Day 3 there was an overview of the subject by Dr. Christina Nicholson, Academic Vice-President, National University of Health Sciences, Chicago, Illinois, USA.
There were then keynote addresses from three leading proponents of the importance of assessment of soft-tissue dysfunction well known as clinicians, authors and teachers in this area – Dr. Warren Hammer, Dr. Craig Liebenson and Dr. Craig Morris.

Next there were presentations by faculty members on current methods of teaching soft-tissue assessment at Logan College (Dr. James George), Parker College (Dr. Lawrence Stolar) and SCUHS (Dr. Mary Kate Connolly).

These various presentations, and the discussions that followed them, led to the following consensus statement agreed in the final session:

"Prospective Matters"

5. Soft-Tissue Dysfunction. The functional examination and assessment of soft-tissue dysfunction should be integrated within chiropractic clinical education.

Other consensus statements arose similarly from the other presentations and discussions. The WFC holds an audiotape record of the conference but not of the various Power Point presentations made. The proceedings are available in printed form and on CD – for

ordering information contact the WFC Secretariat in Toronto at info@wfc.org (Tel: 416-484-9978, Fax: 416-484-9665).

RESULTS

The formal outcome of the meeting appears in the consensus statements agreed in the final session and appearing in Table 2. These should be read in full, and should be read together with the Sao Paulo Consensus Statements (Appendix D) which deal with all clinical education.

A core purpose of the meeting was to promote international consistency in chiropractic education with respect to patient assessment methods, for the benefit of both patients and the profession. Our observations are:

1. It was discovered that there is in fact good consistency in teaching students to conduct patient examination and assessment – similar methods and approaches are employed in all chiropractic educational programs. There is not the same consistency, however, in how the clinical impression or diagnosis is reported, and there is need for improvement here.

2. Despite the consistency with respect to examination and assessment in education, there is broad and unacceptable inconsistency in practice, an inconsistency that confuses patients and greatly limits the growth of acceptance of the profession. If chiropractic is to compete successfully for public and private third party funding in today's more integrated health care systems, the performance and reporting of both patient assessment and diagnosis in clinical practice must be markedly improved and more consistent.

   The current inconsistency is true for recent graduates from all educational programs. It seems to be the result of abandoning methods taught in chiropractic colleges in favour of more simplistic methods advocated by various technique systems and equipment suppliers.

3. Because all individual assessment methods have limited evidence of validity and reliability, a multi-dimensional approach should be taught by colleges and employed in practice. A useful model for such an approach is the PARTS model presented to the conference by Dr. Tom Bergmann and used in several schools in the US and Europe. It is consistent with chiropractic education generally, and is used for reimbursement purposes under the US federal Medicare program. Under this model, five approaches should be considered in the assessment of each chiropractic patient:

   P – Pain/tenderness
   A – Asymmetry/alignment
   R – Range of motion abnormality
   T – Tone/texture/temperature of soft tissues
   S – Special tests (e.g. imaging and laboratory tests).

   Objective information on these individual components of subluxation/joint dysfunction/neuromusculoskeletal lesion should be recorded in a systematic fashion to support specific diagnoses made.

4. Important conclusions were made on language issues that have been problematical for the profession. With respect to the word *diagnosis* it was agreed that the legal and historical reasons for avoiding this term were gone, and that chiropractors have

the right and duty to diagnose. The question is not whether there is a duty to diagnose but rather the extent of that responsibility.

With respect to other language it was agreed that students should be taught a balanced approach – to respect and be able to use both traditional chiropractic terminology (e.g. adjustment and subluxation) and common scientific language (e.g. manipulation, mobilization and joint dysfunction/NMS lesion) in their practices. This flexibility is now very important in a health care world in which chiropractic services are increasingly integrated into mainstream health care systems.

CONCLUSION

The Toronto Conference, even more than the previous WFC/ACC Conferences in Sao Paulo and Fort Lauderdale, demonstrated the ability and value of the chiropractic profession working in unity to achieve an international consensus on important issues.
The consensus reached at this exciting and productive meeting, however, is a starting point rather than the end of the road. There is now a better map, but the profession faces many challenges and much effort if it is to reach its desired destination – good quality, consistency and sound documentation in patient assessment and diagnosis, both in education and clinical practice.

Table 2
WFC/ACC Education Conference-Consensus Statements

I. Introductory Matters

The subject of this conference was chosen in response to the following conclusion and consensus statement at the WFC/ACC Sao Paulo Conference in October 2002:

"With respect to patient examination, assessment and diagnosis, there is a wide variance in methods taught and practiced, and there would be value in a conference of a similar nature to the current one seeking a consensus that would promote greater consistency in chiropractic education and practice in this area."

1. With respect to examination and assessment in chiropractic education:

a) As a result of the presentations and discussions at this meeting, it seems that the wide variance in methods taught at chiropractic degree programs that asserted in 2002 does not exist.

Evidence in support of this conclusion included a review of the areas of patient history, general physical examination, orthopedic and neurologic examination, diagnostic imaging and clinical laboratory testing with respect to specific examples put forth by the organizers. Part of the evidence was the response of clinical faculty to a pre-conference multi-media survey demonstrating patient examinations and assessments.

b) As would be expected in an evaluation of patient examination and assessment procedures taught at a variety of educational programs in many countries, there are differences in emphasis, content, and manner, but there is also a consistent core of common procedures.

2. With respect to diagnosis in chiropractic education:

a) It is agreed that the responsibility to diagnose is an essential part of the practice of chiropractic, for reasons that include patient protection, an appropriate clinical investigation in primary contact practice, patient referral where necessary and assurance that patients are afforded the most appropriate care possible.

b) There is a significant variance, however, in how students are taught to describe and communicate diagnoses.

3. With respect to examination, assessment and diagnosis in the field:

a) The participants felt that there is a much wider variance of patient examination, assessment procedures and diagnosis in a chiropractic practice than in education.

b) Registration boards, boards of examiners, professional associations, specialty bodies, technique affiliated groups and others are encouraged to work in conjunction with educational institutions to investigate methods to minimize the variance seen in these areas in practice.

II General Matters

1. **Principal Focus of Examination**. Within the parameters of a full patient assessment, the principal focus and specialized interest of the chiropractor is and should continue to be the functional assessment of the spine and peripheral joins, and the spine's relationship to the nervous system.

2. **Multidimensional Approach.** Patient examination and assessment procedures should be multidimensional, utilizing procedures and methods bearing the highest levels of evidence available, and accompanied by appropriate outcome measures.

3. **"PARTS" System.** The "PARTS" system is an example of an appropriate framework for a multidimensional approach to chiropractic examination, assessment and diagnosis. The adoption of a conceptual model of this nature as a foundation for clinical education is encouraged. PARTS is an acronym of the following diagnostic criteria:
P – Pain/tenderness
A – Asymmetry/alignment
R – Range of motion abnormality
T – Tone/texture/temperature of soft tissues
S – Special tests (e.g. imaging and laboratory tests).

4. **Integration of Active Learning Methods throughout Curriculum**. Active learning methods should be an integral part of instruction throughout the curriculum, including the utilization of problem-solving exercises, real-life cases in didactic subject-matter, and patient encounters. As students progress through experiential learning, appropriate assessment of their performance is essential.

5. **Matters to Emphasize in Education**. Education and training opportunities should include a wide variety of patient presentations, with an emphasis on those found in the routine practice of chiropractic, and those that hold the greatest opportunity for patient risk and complication.

6. **Diagnostic Imaging and Special Studies**. The participants agree that the use of diagnostic imaging and special studies (e.g. clinical laboratory tests), based on recognized utilization guidelines and protocols and for the purpose of identifying pathology, should be a part of chiropractic education and practice. The enhancement of program curricula to provide greater student exposure to imaging technologies beyond plain film radiography is encouraged. There needs to be further study and evidence to support the use of ionizing radiation for technique specific purposes.

7. **Language**. It is expected that programs offering chiropractic education will encourage respect for the traditional language of the chiropractic profession (e.g., subluxation, vertebral subluxation complex and chiropractic spinal adjustment) as well as an appreciation of the need for common health sciences terminology (e.g., joint dysfunction, mobilization, manipulation) that may be useful in communication with persons in other disciplines and practice settings. The participants had varied opinions with respect to definition and use of these terms. Appreciation of the nuances associated with these terms is encouraged and it is understood that in certain situations these terms may require contextual interpretation.

III Prospective matters

1. **Emerging Practice Environments.** The chiropractic profession will see a continued lessening of the isolation that marked its first century. The participants desire to see students and practitioners better prepared to move effectively and with authority into emerging environments.

2. **Inter-professional Communication.** The ability of students and practitioners to communicate effectively and efficiently with persons of other disciplines, particularly health care disciplines, must be enhanced and refined. Therefore, curricular emphasis in this regard must be strengthened. In addition, continuing education and professional development efforts with respect to this need are important and desired.

3. **Professionalism.** In teaching and assessing issues related to professionalism, institutions should use real-life examples of unacceptable variations of examination, assessment and diagnosis practices.

4. **Cooperative Development of Best Practices.** Chiropractic programs and institutions around the world are encouraged to maximize the contributions of their respective faculties by developing an inventory of key interests and talents, and to pursue a system that would provide forth sharing of these assets among the profession's programs and institutions.

5. **Soft-Tissue Dysfunction.** The function examination and assessment of soft-tissue dysfunction should be integrated within chiropractic clinical education.

6. **Competency Assessment.** Clear, appropriate and criterion-based assessment strategies are important in reliably assessing clinical competency. Institutions and programs are encouraged to continue to advance measures of this nature in their respective offerings.

7. **Educational Methods.** Further incorporation of mastery-oriented and adult-learning methods in chiropractic programs will assist in improving the quality of student and practitioner knowledge, attitudes and skills. Clinically oriented and mentoring approaches in education are recommended with respect to patient examination, assessment and diagnosis.

8. **Clinical Laboratory Best Practices.** The utilization of clinical laboratory examinations is an appropriate part of patient examination. Therefore it is important that the development of best practices for chiropractic practice should be undertaken, and included in the curriculum, notwithstanding that there are legal and other restrictions on the use of clinical laboratory diagnosis in some jurisdictions.

Professional bodies need to pursue standardized international legislation allowing the utilization of laboratory studies by chiropractors.

Finally we cannot end this introduction without mention of the outstanding conference facilities and organization. The opening reception was held at the world's tallest structure, the CN Tower, and most of the conference was at the nearby Renaissance Toronto Hotel at Skydome. However the Friday afternoon program and evening reception were held at the extremely impressive new premises of the Canadian Memorial Chiropractic College at 6100 Leslie Street, Toronto, which had opened the previous month. These aspects of the meeting made the conference especially enjoyable. They were the results of the talents and hard work of Dr. Eleanor White and her team at the World Federation of Chiropractic, and

Dr. John Mrozek and his team at the Canadian Memorial Chiropractic College. Our special thanks to them.

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