## Canadian Chiropractic Researchers

## **Profile**



Dr. Carlo Ammendolia, BSc, DC, FCCRS(C), MSc

Dr. Carlo Ammendolia did not always want to be a chiropractor. It was not until he suffered an injury while playing Varsity football at the University of Toronto and visited an 80-year-old chiropractor by the name of Dr. Oscar E. Christensen. He was intrigued not only by Dr. Christensen's alternative approach to injury management but also his views on health and disease and his enthusiasm for his craft. In 1978, after he received his BSc degree from the University of Toronto, he applied and was accepted to the Canadian Memorial Chiropractic College (CMCC).

In 1982, he graduated from CMCC with Honours and received the most outstanding intern award. Upon

graduation he began practice as a solo practitioner in downtown Toronto. In his early years, he had a special interest in sports and occupational related injuries. He became involved with several intercity sports leagues and a number of small industries, providing treatment and developing injury prevention programs. To expand his skills and knowledge in this area, he enrolled in several post-graduate courses. In 1985, he completed a sports injury course at York University, and in 1993, he completed an occupational certification program offered by the University of Waterloo and CMCC. Early in his career he also became certified in clinical acupuncture. His interest in acupuncture came while working on his fourth year research project at CMCC, when he investigated the potential role of endorphins in pain modulation following spinal manipulation. Dr. Howard Vernon was his research supervisor at the time and recommended he review the acupuncture literature. He found good scientific evidence for both the elevation of endorphin and pain reduction during acupuncture and went on to utilize similar research methods for his study. Over the years he has found acupuncture a good clinical tool to have in practice, whether in combination with chiropractic adjustments or alone.

In the late 1980s, he moved his practice to Maple, Ontario and began to work in a multidisciplinary setting. In 1991, he became the co-ordinator of the Maple Rehabilitation Centre where he continues to work today. To gain further expertise in the area of multidisciplinary rehabilitation, in 1996 he completed a three year fellowship in Chiropractic Rehabilitation Sciences. The fellowship program emphasized the importance of outcome measures as a means to verify objectively the need for treatment and to monitor patient progress. He put together a series of validated outcome measures as well as treatment protocols to be used in a multidisciplinary setting for patients with soft tissue injuries. During this time he developed the Home Task Abilities Questionnaire, an outcome measure used to quantitatively assess functional ability in the home. This is a useful tool for third party payers who often adjudicate the need for outside assistance in the home. The questionnaire is also helpful in formulating rehabilitation programs tailored to specific functional limitations in the home. Over the years, he has been collecting data comparing his questionnaire to other validated disability indices.

The move to formal research from clinical practice developed later in his career when his interest gradually shifted towards evidence-based health care and guideline development and implementation. This change was primarily due to his concern about the sustainability of Medicare in Canada and the need for health care reforms. Reaction from the public, third party payers and governments to escalating health care costs has been strong. They are demanding health care providers be more accountable by evaluating their current practices and delivering appropriate and effective health care. The development and implementation of evidence-based guidelines is one method of controlling costs and improving health care. Dr. Ammendolia believes this is the future direction of health care, and the chiropractic profession will not be immune to the process of self-evaluation and the shift towards evidence-based practice. To meet this challenge, our profession needs more credentialled researchers in this area. As a means to this end, in 1996 he became a research fellow at CMCC and applied to the Master's program in Clinical Epidemiology and Health care Research at the University of Toronto. He was fortunate to have as his research supervisor Dr. Claire Bombardier, the Director of the Clinical Epidemiology Program at the University of Toronto, a senior scientist at the Institute for Work & Health (IWH) and a world renowned researcher in back pain and soft tissue injuries. Under her guidance he conducted several research projects including his thesis entitled; Implementing evidence-based guidelines for x-ray use in acute low back pain, a chiropractic community intervention, and

a focus group study evaluating the views of chiropractors towards x-ray use and clinical guidelines. He was also involved in a study conducted at the IWH evaluating the effectiveness of a community intervention program in changing the management of acute low back pain among physicians, towards evidence-based practice. With regards to occupational health, he also conducted a systematic review of the literature evaluating the effectiveness of back belt use in the primary prevention of occupational low back injuries. This study was done in collaboration with the Canadian Task Force for Preventive Health Care with the intent of including the recommendations in the Canadian Guide to Clinical Preventive Health Care.

He completed his Master's degree in 1999. He returned to part-time practice in Maple and became a supervisor for CMCC interns who spend three months at his clinic improving their clinical skills. During the past two years he also became a member of the Steering Committee for the revision of the Clinical Guidelines for Chiropractic Practice in Canada and a member of the Funding Allocation Committee for the Canadian Chiropractic Research Foundation. Recently he has been asked to be a member of the Scientific Advisory Committee for the Community Hypertension and Arthritis Project, sponsored by Princess Margaret Hospital and the University of Toronto. This project is evaluating the health care management of patients with hypertension and arthritis.

Dr. Ammendolia is planning to begin his PhD studies at the University of Toronto in 2001. His desire to continue further education was inspired by Dr. Bombardier who has been a wonderful mentor and supporter of chiropractic research. For his PhD thesis, he would like to conduct a prospective validation of a decision aid tool to be used by chiropractors to assess the need for x-ray in patients with acute low back pain.

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