

CHIROPRACTIC HOSPITAL APPOINTMENTS IN AUSTRALIA - AN INTERNATIONAL COMPARISON

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ABSTRACT

This paper outlines a number of instances involving chiropractors holding positions in medical hospitals. While it portrays this relationship in Australia, it also reviews developments in other countries. There has, however, been only limited involvement of chiropractors in Australian hospitals. In contrast to other countries, the involvement has not involved in-patient management, except where the chiropractor has obtained further medical qualifications. The degree of participation has been essentially in a minimal number of hospital-associated research projects. Given the strong trend internationally, Australia is way behind in this area with some countries initiating this trend almost 30 years ago and some 20 countries utilising chiropractic health services in this way.

Key Indexing Terms: History of Medicine; Chiropractic; Hospital Affiliations [Chiropr J Australia 2016;44(2):142-163]

INTRODUCTION

It is virtually impossible to enumerate the number of chiropractors employed in hospitals, or the number of medical hospitals throughout the world where chiropractors hold positions. While this development is particularly prevalent in the US, it has taken a step further in more recent times, when manipulation under anaesthesia (MUA) appears to be in demand.

Denmark and Switzerland appear to be the pioneers in this field, with at least 16 countries implementing the trend to varying degrees. Some associations are purely for research purposes. There are also strong moves towards incorporating chiropractic services in hospitals in Canada and South Africa.

DISCUSSION

Initially, I wanted to focus on chiropractic-hospital relationships in Australia. However, it became apparent that it was necessary to compare the Australian situation with other countries. Various internet sources were also accessed, based on a superficial general knowledge of previously published events.

The Index to Chiropractic Literature and Google search engines were the most productive leads in confirming known connections, but also in revealing further leads. Another source of information for this paper was the World Health Organisation's website(1), although unfortunately it appears to not have been updated in recent times.

Assistance was also sought from colleagues, who proved to be most forthcoming.

Historically

As the advent of chiropractic was in the United States over 110 years ago, it would seem logical that most of the of the profession's relationships associated with hospitals would be there. In addition, a third of the initial class of chiropractic students in 1898, were in fact medical doctors (2).

In a number of hospitals, chiropractors were a part of normal hospital personnel in their own right, particularly during the first half of the 1900's (3). These included the Lindell Hospital in St Louis and quite a few country hospitals (2, p.246).

Between 1914 and 1924, chiropractic students were admitted to all clinics and autopsies of the Cook County Hospital in Chicago. They also attended patients and witnessed surgical procedures (2, p.136-137).

Wardwell states that in the US, chiropractors admitted patients to medical hospitals and treated them up until the early 1960's (2, p.12,246) Through the activities by a Dr Morris Fishbein, the AMA and others, professional territorial barriers reduced that trend. However, the practice persisted in some US state (4) Gibbons explained that *"pioneer intraprofessional co-operation preceded the bitter warfare declared by the AMA against chiropractors in the 1920s."* (5)

A number of multi-bed *chiropractic* hospitals were established throughout the USA in the first half of last century. In 1950 there were at least 32 hospitals, sanitarium or similar facilities in 18 states. In the 50 years from 1910 until 1960, it was estimated that some 150 'purely chiropractic' institutions existed. Gibbons also states that no records exist to show how many such institutions were owned by chiropractors, directed by chiropractors, had chiropractic admitting rights or had chiropractors on staff. One suspects the figure encompassing all these forms of association could approach 1,000. This would include both many small hospitals as well as the larger institutions (5).

It seems that chiropractic was so popular in the first decade following its inception that DD Palmer himself maintained a small infirmary in Davenport Iowa before 1905 (5).

About 1918, just after World War 1, the chiropractor Dr. IB Hall, opened perhaps the first sanitarium with a county medical officer in Wakeeney, Kansas. It provided 20 beds and had a 24-hour nursing cover (5).

Another was a 25-bed sanitarium built by the chiropractor Dr George Hariman at Grand Forks, North Dakota in 1928 (6).

By 1934, the National Council of Chiropractic Hospitals and Sanitaria was formed. This later merged with the American Chiropractic Association. The council published 'Standards for Internship for Chiropractic Hospitals' the following year. The Council also published a curriculum for nursing schools (5).

Dr R. Baakum opened a 30-bed chiropractic hospital in 1936. It also had a maternity ward and *'medical consultation was always available'*. (7)

A chiropractic psychiatric institution, Clear View Sanitarium, opened in Davenport in 1926. In 1952, it was purchased and renamed the Fountainhead Chiropractic Hospital. The

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institution was closed in 1961 (8,9). Many patients, particularly those who suffered psychological problems as a result of trauma, reportedly experienced positive clinical outcomes (10).

The Spears Free Clinic and Hospital was established by Dr Leo Spears in 1943 and provided chiropractic in-patient care. By 1949, this eventually resulted in two units comprising some 600 beds on 15 acres of land. This hospital's paediatric ward had a waiting list and it had also established a nursing school. Another of its services was to provide daily meals to several hundred needy children, following the Great Depression (11).

There are chiropractors practising in Australia today who served their intern years at these 2 hospitals (12).

Until 1998, in the US, it was suggested that *"despite such impressive credentials"* it was understood that chiropractors were not affiliated with any known university-affiliated teaching-hospital centres where they could "perform manipulation on patients." Kaptchuk and Eisenberg recognised that a few small hospitals sanctioned inpatient care by chiropractors. More recently, this situation has changed due to interprofessional collaboration with chiropractors who provide manipulation under anaesthetic (MUA) in a number of hospitals in the US (13).

In contrast to that view however, the American Chiropractic Association states that since 1983, renewed relationships between the chiropractors and hospitals have led to hospital privileges being granted to chiropractors, in a growing trend. In addition, a supportive organisation for these practitioners was been formed - the American Academy of Hospital Chiropractors. In 2011, the Los Angeles Times reported that more hospitals were offering alternative therapies, including chiropractic. This is primarily in response to patient requests (14-16).

By 2006, a survey by the American Hospital Association concerning a professional association of chiropractors with hospitals, produced the following statistics:-

- 91 hospitals (2.2%) reported hospital-based chiropractic services.
- 119 hospitals (2.9%) reported chiropractic services provided by their system.
- 87 hospitals (2.1%) reported chiropractic services provided by their network.
- 77 hospitals (1.9%) reported chiropractic services provided through a joint venture." (17)

In other developments, chiropractors are also providing services in multi-professional clinics such as the L.A.-based DISC Sports and Spine Centre, founded by Dr Robert Bray in 2006. This centre is the official medical provider of the U.S. Olympic Team and the national Los Angeles Kings professional ice hockey team. It provides a multidisciplinary approach to pain, with a team of providers which include chiropractors, acupuncturists, pain management specialists, rehabilitation therapists and surgeons functioning as an integrated group (18).

Review

There are over 40 chiropractic educational institutions in existence throughout the world, of which 4 are in Australia. There are 17 in the US, 9 in Europe and 2 in Canada. Of the

countries where there is close collaboration with medical hospitals, Australia does not fare well by comparison, as there is not a single known formal chiropractic appointment in any hospital. There are however, some chiropractic researchers in Australian universities where there are medical faculties (19).

Conversely and internationally, the situation is rather well established, with a number of affiliations between chiropractors and hospital appointments. Some of these are research positions; others are clinical positions as well as internships - naturally some hospitals combine all 3 aspects.

The earliest record of formal appointments of chiropractors in hospital positions is noted as being early last century in the United States. This diminished with the advent of political campaigns against non-medical health professions. Over 30 years ago however, Denmark re-established medical-chiropractic relationships in 1985. There are 15 chiropractors employed in Danish hospitals (20).

Of note, is the undergraduate education of chiropractors in both Denmark and Switzerland, where there are parallel streams of chiropractic and medical students in shared classes - primarily the basic sciences. They attend these classes up to the therapy pathway where they naturally diverge (21).

Hospital-Based Collaborative Research

Interestingly, there are numerous examples of chiropractic appointments in hospitals as residents, interns and clinicians. There are also a number of collaborative research projects incorporating medical and chiropractic personnel in universities. Hospital-based collaborative research involving chiropractors is well established in Canada, United States, Denmark and Switzerland. Indeed it is a part of the graduate requirements in some countries.

Chiropractic Hospital Situation in Australia

Apart from the chiropractic graduates who entered medical school in the 1980's, an early formal association of a chiropractor with a hospital in Australia appears to have been in 1994 when Dr Lynton Giles was appointed Reader at James Cook University in Townsville. This was followed by his affiliation with the National Centre for Multidisciplinary Studies of Back Pain at the Townsville General Hospital in 1995. This centre was most successful with some 400 medical doctors referring 1,775 patients to the Centre over 7 years. This unit closed in 2002 due to 'funding problems'. (22,23)

Following his chiropractic graduation in 1970, Dr Giles completed a PhD in anatomy at the University of Western Australia. He is the author/co-author of 3 widely recognised textbooks on low back pain (24).

A further collaborative hospital-chiropractic development in Adelaide was negated when a proposed residency programme became politicised about 1988. The Medical Superintendent at Modbury Hospital had previously approved the programme (25)

A second opportunity in South Australia was created through a relationship with the Radiology Department at the Adelaide Children's Hospital. This allowed chiropractic

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fieldwork students to attend the department to observe the reporting of films. This operated for a few hours each week for 1 year. This cooperation also developed through Dr Neil Davies, who introduced Dr Lindsay Rowe - a chiropractic radiologist and his 2-volume text, to the department. This collaboration ceased following 'political' interference (26).

In a publication on chiropractic in Australia, Arthur O'Neill's refers to this incident as "*...a trial arrangement where a few students have been allowed to take their residency programme in a South Australian Hospital. These students told...how amazed medical doctors and students were to find out how much education and knowledge the chiropractors had, how they could read x-rays better than many medical interns...*" (27)

At least 6 medical doctors have undertaken and graduated from chiropractic courses in Australia. Essentially, all these medical graduates have been international enrolments and some of these have returned overseas. Others practice locally. These candidates originated from a variety of countries which include Poland, China, Switzerland, and a Russia paediatrician (28).

After completing chiropractic studies in Australia, the first 3 graduates to subsequently obtained medical degrees specialised in different fields - one in orthopaedic surgery - Mr John De La Harpe, Dr Lindsay Rowe in radiology, and Dr Rob Dominguez who practices in his medical specialty of anaesthetics and also as a chiropractor.

The 1979 Melbourne chiropractic graduate, the late Dr Lindsay Rowe is co-author of a well-respected and authoritative 2-volume radiology text. It appears that the text is also highly sought by medical radiologists, particularly in the US, as it is now in its 3rd edition. Dr Rowe, who sadly recently passed away, was an associate professor at the School of Medicine and Public Health at the University of Newcastle and at the John Hunter Hospital in Newcastle (29).

Subsequently, there have been a number of chiropractors who have since graduated from medicine - 1 studied chiropractic and medicine concurrently, another is undertaking her PhD in medical education. Dual graduates have pursued their medical profession in such specialities as radiology (2), anaesthesiology, emergency medicine, medical lecturing, general practice and orthopaedic surgery. There are some 6 or 8 chiropractic graduates currently known to be studying medicine at the time of preparing this paper. Overall, it is estimated that between 12 and 15 graduates have, or are currently seeking the second leg of dual formal qualifications in Australia (28).

In 2006, it was reported that a new hospital associated with Macquarie University was to be developed. A chiropractic department was proposed which would provide "*a clinical floor...in the hospital (that) would facilitate research and clinical training, providing a unique opportunity for chiropractic training.*" This opportunity did not eventuate (24).

Another Australian chiropractor, Dr James Evans was elected as a Member of the Board of Management of the Bairnsdale Regional Hospital. During the 17 years, he served in every executive position including that of President. He was also the hospital's representative on the Victorian Healthcare Association Divisional Council for over 8 years. Upon retirement from the Board in November 2008, and in recognition of his contribution, he was made a Life Governor (30).

In Australia, a number of chiropractors have reportedly attended patients in hospitals, often at a patient's request (31). This has apparently been both informally, or formally with the admitting doctor's agreement. I am aware during the 1970's when 1 country hospital lent its portable x-ray unit to a local chiropractor while his was being repaired. In collaboration with staff and following a successful precedent, Dr Michael McKibbin responded to a number of requests to examine and adjust infants' spines at the Woodside Maternity Hospital in Perth over 20 years ago. (Personal communication. April 29, 2016.)

There continues to be regular inter-professional patient referrals and collaboration between chiropractors and radiologists, some of these radiology facilities operate from hospital facilities. This is the only specialty with formal Medicare permitted referrals (32). In the state of Victoria, there are no known formal clinical or research relationships between hospitals and chiropractors, although the Minister for Health in that state is in fact a chiropractor (33).

Chiropractic Hospital Affiliations Internationally

The following list is extensive, but not conclusive. It has been difficult to determine an accurate current status due to the somewhat fluid state of changes, mergers and the growing number of chiropractic affiliations being established.

The hospital-chiropractic relationship ranges through admitting rights, triage, treatment, research, internships, ward observations, referral collaboration to chiropractic ownership.

Austria

"According to the Law on Health Services, only scientifically recognized medical care can be provided in hospitals. Acupuncture, neuraltherapy, and chiropractic are recognized, but not homeopathy." (34)

Brazil

A major insurance company - Porto Seguro Saude has established a hospital-based ambulatory unit at the Hospital Santa Catarina in Sao Paulo. It is a multidisciplinary unit known as the Health Promotion Institute (35).

Canada

In Canada, there have been relationships between a number of hospitals and chiropractors, chiropractic colleges and senior students. This relationship has been at various levels and has included, research and clinical care (36). There are also observational placements, with orthopaedic surgeons and a pilot placement initiative with physiatrists specialising in neurorehabilitation at the Toronto Rehabilitation Institute (37). Other organisations associated with formal chiropractic health care have included the Canadian Armed Forces and the Royal Canadian Mounted Police. In 2006, the Canadian Chiropractic Association stated that *"Health care is provided to eligible veterans in the departmental hospital in Ste-Anne-de-Bellevue (Quebec), in veterans' homes, in contract hospital beds and in hospitals of choice."* (38,39)

It was considered appropriate to depict the Canadian situation province by province.

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- **Alberta**

The Foothills Hospital in Calgary (40).

- **British Columbia**

Department of Orthopaedic Surgery, Vancouver General Hospital (41,42).

- **Manitoba**

Chiropractors provide care in hospitals and other multidisciplinary health care facilities (43).

- **Newfoundland & and Labrador**

Chiropractors in Newfoundland and Labrador have hospital privileges as they relate to the ordering of patients for radiological examination (44).

- **Nova Scotia**

The Archie McCallum Hospital at Canadian Forces Base in Stadacona, Halifax (45).

- **Ontario**

Mount Sinai Hospital, Toronto

The Chiropractic Spine Clinic and the Spinal Stenosis Program at the Rebecca MacDonald Centre for Arthritis and Autoimmune Diseases was established at the Mount Sinai Hospital in Toronto where *"Patients may call the Chiropractic Spine Clinic directly or be referred by their doctor, specialist or other health care provider."* (46,47) It has connections with top level sports personel and proclaim s that *"Our team consists of a core group of specialists who've treated amateur, Olympic, and professional athletes including members of The Toronto Maple Leafs, The Toronto Blue Jays, The Toronto Raptors, as well as a number of other professional sports teams in Canada, the U.S. and overseas."* (48)

Providence Hospital, Toronto (49).

St John's Rehab Hospital at The Sunnybrook Hospital (50).

St Joseph's Hospital in Hamilton, Ontario (51).

The St. Michael's Hospital Department of Family and Community Medicine in Toronto. In April 2004 an initiative at this hospital was made possible due to the Ontario Ministry of Health and Long-Term Care Primary Care Health Transition Fund (52).

In a Canadian first, the faculty at the Canadian Memorial Chiropractic College became chiropractors-on-staff at this hospital in 2003 (53).

The Centre for Research Expertise in Improved Disability Outcomes (CREIDO) at University Health Network Rehabilitation Solutions located at the Toronto Western Hospital (54).

Following her Fellowship in Chiropractic Clinical Sciences in 1993, the Canadian chiropractor Dr Deborah Kopansky-Giles initially undertook a research project at the

Hospital for Sick Children in Toronto. Subsequently, she was appointed the principal investigator for a large demonstration project at St. Michael's Hospital. This research project studied Integrating Chiropractic Health Care in Primary Care in a Hospital-Based Setting. The project received a \$600,000 grant from the Ministry of Health and Long Term Care in Ontario. The 2-year project evaluated a new model of health service delivery where chiropractors were integrated as staff practitioners into a teaching hospital. The project was deemed a success and as of June 2007 had been given permanent funding and has been integrated into the primary care staff at the hospital (55).

Further, under the auspices of the Ontario Ministry of Health and Long Term Care, chiropractic doctors are now working on Family Health Teams and Community Health Centres as interdisciplinary models of care with an increased focus on wellness and preventative health which has evolved as a new paradigm (56-58).

- **Quebec**

Department of Veteran Affairs hospital in Ste-Anne-de-Bellevue (39).

- **Saskatchewan**

The Department of Orthopedics, Royal University Hospital, within the University of Saskatchewan (Research) (59).

China

A Dr Michael Gua is listed as working at the Chenxin Hospital in Shanghai before moving back to Beijing (60). Dr. Glen MacPherson is a chiropractor who works at Global HealthCare and Landseed Hospital in Shanghai, China (61). A Dr Linda Atkinson reportedly practised at the No1 People Hospital in Zigong in Sachuan Province (62).

Denmark

Denmark is the first country in which chiropractors have established a role as admitting specialists first seen by patients in a spine care hospital setting. Dr. Soren O'Neill currently serves as chief chiropractor at the Spine Centre for Southern Denmark at Lillebaelt Hospital in Middelfart. This is the main hospital of three that serve the Spine Centre for Southern Denmark. The hospital operates in collaboration with chiropractic students at the University of Southern Denmark (USD) where they receive much of their clinical training and research (63).

Dr. O'Neill spoke at the World Federation of Chiropractic Biennial Congress in Rio de Janeiro in 2011. He addressed the different models of chiropractic practice based on the "Danish Experience: A Hospital-Based Specialist and First Point of Entry." (63)

At this Lillebaelt Hospital, chiropractors participate as triage doctors providing the initial diagnosis of patients (35,64).

There is also collaboration between the chiropractic students at the Odense University and the Odense University Hospital and also an affiliation with the Hospital of Funen (65-67). There are some 15 chiropractors employed in hospitals in Denmark (20).

Germany

The German situation is somewhat different to other countries. Chiropractic in Germany has been adopted by medical doctors to the exclusion of chiropractors. To that extent

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they would have access to hospital facilities. These *chiropraktikers* have published widely on the topic, but mostly in German. These papers listed on PubMed cover a variety of conditions both musculoskeletal and visceral, as well as paediatric care (68-70).

Guatemala

Possibly due to its initial location adjacent to a major city hospital, Dr David Tyggum's chiropractic clinic in Guatemala City has well established referral protocols with the hospital's specialists (35). Dr James Schantz also provided chiropractic care on a passing mission visit at a small rural hospital in Melchor in western Guatemala (71). I am aware of similar care provided in a number of countries on a temporary basis by senior students in programs associated with various chiropractic colleges (72).

India

There is a rather unique situation in India. An orthopaedic surgeon, Dr V. Jain has converted a wing of his own hospital and employs chiropractors at this Guru Nanak Mission Hospital in Jalandhar, in the Punjab. As of September 2012, he was in the process of obtaining chiropractic qualifications as well. "He feels that chiropractic is the missing piece in the Indian health system and he aspires to help change that." In 2011, there were only 4 chiropractic clinics and three chiropractors practising full-time in all of India (73).

Indonesia

Chiropractic is one of a number of so-called 'complementary and alternative' therapies available in 12 hospitals in Indonesia (74).

Israel

There are over 60 chiropractors in Israel and at least five hospitals encompass chiropractic health services. This includes the RAMBAM Hospital in Haifa (75).

Malaysia

Chiropractic is listed as one of the health services at the Tung Shin Hospital in Kuala Lumpur (76). It is also mentioned as being provided at the Chiropractic Hospital Mont Kiara at Petaling Jaya, Selangor (77) and the Global Doctors Hospital, Mont Kiara, Wilayah Persekutuan (78).

Norway

The Central Hospital of Sogn and Fjordane, Førde, Norway reportedly initiated the appointment of a chiropractor to its Department of Orthopaedics almost a decade ago. The motivation for this was a research project where some patients were treated by a chiropractor in the hospital and some at his private clinic. The clinical outcomes were reported as being most favourable (79,80).

Russia

In 2006, the first chiropractor was placed in the St Elizabeth Hospital in St Petersburg. This was under the leadership of Dr Boris Taitz (81).

In 1991, a chiropractic faculty was proposed to be established at the Pirogov Institute in Moscow. The clinical training for this course was to take place at the City Hospital No 15. I was unable to determine the current status of this development. It was found however, that it evolved through the efforts of a chiropractor Dr Steven Press and the institute's

chief neurologist, Dr Anatoly Fedin, and that Dr Press had been conducting MUA there under a plenary license since 1988 (82,83).

I also found that an Institute of Vertebro-neurology and Manual Medicine has been established in Vladivostok.(84)

Saudi Arabia

At the Saad Specialist Hospital in Al Khobar, the rehabilitation department has six chiropractors amongst its multidisciplinary staff.(35,85)

South Africa

The first chiropractors arrived in South Africa in the 1920's. There are now some 400 practitioners there and 2 university courses in chiropractic.

At the Durban University of Technology, undergraduate chiropractic students observe during general medical ward rounds as part of their clinical practical education. These students are exposed to a wide range of conditions and can include general medical wards as well as such specialty wards as ophthalmology, neurology, dermatology, respiratory, obstetrics and gynaecology. There is an emphasis on diagnosis for these undergraduates attending ward rounds in some other Durban area hospitals. They also have the opportunity to attend outpatient community clinics as well.

Following graduation, there are a number of opportunities for interning both in hospitals and in multi-disciplinary clinics. One public (state) institution, the Kimberley Hospital, employs graduate chiropractors in a treating role as part of the hospital's staff. There are also several private hospitals that employ chiropractors. Others hospitals employ chiropractors on contract. In addition, some chiropractors practice out of hospital facilities or multi-disciplinary medical clinics.

The other chiropractic course - the Faculty of Health Science at the University of Johannesburg, does not offer chiropractic students or graduates the same broader opportunity in the hospital setting as the Durban institution.(86-89)

Sweden

"Students wishing to practice in Sweden after the completion of the Master of Chiropractic, are required to undertake a one year internship which consists of 3 months training at a hospital and 9 months training with a chiropractor before being able to apply for licence to practice in Sweden." (90)

Switzerland

The Swiss Chiropractic Academy requires students to fulfil a 4-month training component in rheumatology and orthopaedics at a university hospital. The profession is a government-recognised medical profession. This leads to significant inter-professional referrals and co-operation. Two of the participating centres are at the Department of Chiropractic Medicine Centre at the University of Zürich and at the Orthopaedic University Hospital of Balgrist, Zürich.(91,92)

Chiropractic is considered an independent medical profession that is federally regulated and recognized throughout the country.(93)

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Swiss based Dr Christoph Gorback (DC MD), is listed as attending the following medical departments in Europe (94):-

- Orthopaedic Dept, University Hospital Balgrist
- Dept. of Internal Med., Cantonal Hospital, Baden
- Rheumatology Dept, Triemli Hosp, Zürich
- Rheumatology Dept., Schulthess Clinic, Zürich
- Rheumatology Dept. University Hosp. of Zürich
- Rheumatology Dept. Hospital St. Katharinental in Diessenhofen
- Chiropractic Medicine in University Hospital Balgrist.

Thailand

The practice of chiropractic is available in hospitals under the supervision of licensed physicians.(95)

Uganda

In Uganda, a chiropractor Dr Charles Sebwana, provides his specialty at the Chiropractic Unit at the Mulago Hospital in Kampala.(35)

United Kingdom

An example of hospital-related association with chiropractic in the UK would be the 1990-1995 research project which involved hospital-based out-patient care for low back pain (LBP) candidates, the results being compared to chiropractic care of LBP patients in independent clinics. The study was centred at the Epidemiology and Medical Care Unit, Northwick Park Hospital, Harrow, Middlesex and conducted by Dr TW Meade et al. The results were most favourable for the patients under chiropractic care.(96,97)

United States

Based on figures from a 2006 survey, it is not practical to list all the hospitals that now have an association with chiropractors in the United States. 19 An association for certification of hospital-based chiropractors was established about 2004.(98) There are over 110 members listed on this organisation's website - the American Academy of Hospital Chiropractors.(99)

By 2011, the practice of including other health professions including chiropractors in hospital care became even more widespread, with co-operation and collaboration becoming more widely integrated.(100)

In January 2005, the results of a survey found that 6% of chiropractors in the United States have some type of hospital privileges.(101)

Definitive moves towards greater utilisation of chiropractic services in US hospitals have developed over the past 20 years. This would seem particularly due to the incorporation of manipulation under anaesthetic. This has created a further avenue for inter-professional co-operation. The medical body, Academy of Physicians' website discusses open collaboration with chiropractors in providing MUA services.(102,103)

In a significant finding comparing patient results, the orthopaedic surgeon and radiologist Dr Per Freitag, testified under oath that following a study at the John F Kennedy Hospital, *“the average hospital stay of orthopaedic patients was cut in half when they received in-hospital chiropractic care concurrently with other medical treatment.”* (Circa 1980)(104)

In 2007, it was reported that a study by Blue Cross/Blue Shield in Illinois established that there was a reduction in hospital costs by the utilisation of chiropractors' services. The study demonstrated a 60.2% reduction in hospital admissions, a 59% reduction in hospital days, 62% reduction in outpatient surgeries and procedures and an 85% reduction in pharmaceutical costs, by employing chiropractors.(105)

As examples, the following hospitals in the US have, or have had chiropractic appointments:-

Patients at the John F Kennedy Hospital (now Our Lady of Resurrection) in Chicago, incorporated chiropractic treatment for lower back pain patients in about the 1970's.(105)

Dr Donald Murphy from Brown University Medical School is also the Staff chiropractic physician at the Women and Infants Hospital in Providence, Rhode Island.(105,106)

In 1997, a Department of Chiropractic Medicine was opened in the New Jersey's Montclair Community Hospital and the Meadowlands Hospital Medical Center. At the time, the president of the board of trustees - a medical doctor, stated that *"We're pleased to join the expanding number of doctors and chiropractors across the nation who work jointly to maximize the quality of health for their patients"* (107)

Interns at the Texas Chiropractic College participate in rotations at the following hospitals (108):-

- Memorial Hermann Hospital Southeast
- Methodist Hospital—Neurosurgery Service and Baylor Orthopedic Sports Medicine
- St. Joseph's Hospital—Neurosurgery Service
- St. Luke's Episcopal Hospital—Neurosurgery Service
- Vista Medical Center Hospital

Clinical internships have been established at the Jordan Hospital in Plymouth, Massachusetts.(109,110)

In at least 1998, a Department of Chiropractic Medicine at the Graduate Hospital, Philadelphia became the first hospital in the state to perform manipulation under anesthesia (MUA).(111)

Another hospital involved with chiropractors is the Osher Clinical Centre for Complementary and Integrative Medical Therapies. This institution is a part of the Brigham Young Medical Hospital and affiliated with the Harvard Medical School.(112)

Also in the US, there are chiropractors providing services in military, veteran administration and many private hospitals. The Department of Veterans Affairs (VA) has begun a long-overdue process of providing veterans with access to chiropractic care by placing doctors of chiropractic on staff at a number of VA hospitals. In addition there are at least 42 military facilities at which chiropractic services are now being provided. (113-115)

In the writer's opinion, some of the most exciting developments in chiropractic is the research projects being conducted through the F. R. Carrick Institute for Clinical Ergonomics, Rehabilitation, and Applied Neuroscience, in Florida. It has clinical relationships with a number of medical bodies including the:- (116)

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- French Hospital, Nazareth, Israel,
- English Hospital, Nazareth, Israel,
- Winthrop University Hospital Department of Neonatology, Mineola, NY and the,
- Institute for Neurology and Neurosurgery, Havana, Cuba.

Dr Carrick states that he has attended patients in approximately 500 hospitals, most on an emergency basis.(117)

It is also noted that there are also chiropractors providing services to animals at a number of veterinary hospitals in the US.(118)

Despite the numerous worldwide precedents of chiropractors being affiliated with hospitals cited here, there appears to be resistance to such inter-professional co-operation and collaboration in Australia.

Australia, New Zealand and the UK appear to have the least integration of a wider role for chiropractors in health services. Other countries appear to see that chiropractic does have a unique and positive model to contribute to the healing sciences.

Internationally, not only are chiropractors in hospitals in various roles, but chiropractic concepts and terminology are recognised in medical literature. In addition, manipulative techniques and chiropractic health management models have been adopted in multi-practitioner medical practices.

Four government reports recommending that chiropractic services be available in hospitals have only been taken up in one jurisdiction.

The 1984 Australian Federal Minister for Health's Medicare Review Committee recommended in favour of chiropractic services in hospitals and other publicly funded institutions.(119)

The 18-month long 1979 New Zealand Government's Royal Commission on chiropractic, *"...established beyond any reasonable degree of doubt that chiropractors have a more thorough training in spinal mechanics and spinal manual therapy than any other health professional."* It found further *" that chiropractic was a scientifically based, valid, safe and very effective treatment that should be in the mainstream of health care and should be used in hospitals."* (120)

The Ontario Government's "Manga Report" in Canada recommended that chiropractors be employed in tertiary hospitals, that hospital privileges should apply to chiropractors to treat their own patients (that had been hospitalised for other reasons) as well as for access to diagnostic facilities. It also recommended that chiropractors should have access to all relevant patient records held by those hospitals. 120 The reference here to *diagnostic facilities* is also a matter that begs review in Australia. For any legislated health profession to be expected to produce the highest diagnostic standards and to be accountable for their diagnoses, severely limited access to diagnostic facilities is inappropriate, if not irresponsible.

A 2-year landmark study *"conducted by the Italian government, followed 17,000 patients. The dramatic results showed that patients under chiropractic care had their hospitalisation for back ailments reduced by 87.6% and work loss by 75.5%"* 120 One cannot help but

wonder what counter influences govern any implementation of recommendations resulting from such studies.(120)

There have been regular media notices referring to the shortage of medical manpower services. However, if chiropractic does have something to offer as recognised in other countries, it is being ignored in this country.

In Australia, there seems to have been no known formal examination to access the potential for any degree of contribution which could be made by the provision of chiropractic health services in hospitals. Nor has there been any known formal assessment of any need to modify the chiropractic university undergraduate or indeed postgraduate courses for hospital services. It is suggested here that there would be little if any alterations to the existing chiropractic courses in order to take advantage of such services.

It is noted that consideration has been recently given for both pharmacists and nurses to provide limited primary contact care, but neither of these respected professions offer the depth of diagnostic or therapeutic services provided by chiropractors.(121-122)

This recognised shortage of medical services could be at least partially facilitated with the supplementation of an already legislatively recognised chiropractic profession. As discussed, there are noted international precedents for this.

There is not suggestion here that the role of chiropractors should be to replace any medical personnel. It could however, provide various health services in those areas where chiropractors specialise. This would imply open collaboration and co-operation with other health professions to supplement current health services.

Chiropractors regularly conduct initial physical (including blood pressures), orthopaedic, neurological examinations, and diagnoses. They are trained to diagnose and recognise signs and symptoms of conditions which may be outside their area of expertise. It is well established that appropriate referrals already take place when they are indicated.

Legislated, qualified and formally trained chiropractors annually provide a legally recognised health service to approximately 200,000 patients weekly - some 10 million consultations in Australia annually. Many of these are in collaboration with and/or referred by medical practitioners.

One may assume that criticism of such a proposal would be primarily based on political and territorial claims rather than scientific or academic ones. The independence, fairness and accuracy of some critics of chiropractic have been called into question by an independent authority.(123) It is recognised that critics must be free to express authoritative opinion. However, that opinion must be truthful, unbiased, informed, accurate, fair and scientific.

Uninformed or inadequately informed opinion could be seen as restricting the integration of chiropractic into hospital services, thereby depriving informed patients of their choice of health care. The health services provided under this model of care are not currently carried out in Australian hospitals.

It becomes apparent that those with a sceptical or cynical attitude towards chiropractic should assess at how they arrived at their opinion. Is it an informed opinion? How was it informed? Is the information source unbiased and accurate?

Health administrators in Australia appear to be out-of-step with international developments. A whole different mind-set will be required to open chiropractic health services into hospitals in this country.(124)

CONCLUSION

The potential for chiropractic health care services as a resource for hospitalised patients in Australia is being ignored. Thus, the fact remains that this country is quite out-of-step with the trend in other countries in this regard.

As has already occurred in other countries, greater utilisation of chiropractic health services should be available to those patients who exercise such an option. Australia appears to be out of touch with global developments involving the appointments of chiropractors in hospitals. These international trends and precedents would suggest that there is a case for the inclusion of chiropractic health care in Australian hospitals.

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