CHIROPRACTORS as Primary Spine Specialist in Indian Context: Past, Present and Future

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Science and medicine have made advancements in leaps and bounds resulting in reduction of mortality rate and improvement of the quality of life. However, chronic diseases such as musculoskeletal pain, aches and spine related issues have become commonplace. For the past few decades, medical approaches that integrate conventional and complementary/alternative medicine (CAM) have increased significantly in Europe, Australia and America especially in the management of pain and spinal disorders. These approaches have produced positive scientific results that form the basis of a refreshing and a novel integrative method of treatment and healing.

Chiropractic is one of the largest and most established segments of CAM in the United States where “Doctors of Chiropractic (DC)” work as primary spine care specialists. According to the US Department of Labor report, DCs occupied about 52,600 jobs in 2010 and this number is estimated to increase by 14,900 by the year 2020. This increase in trend can be attributed to the proactive steps taken by the US government and chiropractic educational institutions towards improving chiropractic education, training and regulating policies for the betterment of chiropractic services in the country.

A similar approach has to be implemented for the promotion and wide scale utilization of chiropractic services in India. As chiropractors receive extensive training tantamount to medical professionals in terms of diagnosis and treatment procedures with a heavy focus on management of spinal conditions, they too should be integrated in the mainstream health care system. To spread awareness and importance of chiropractic care among the people of India, we require better utilization of spinal conditions, they too should be integrated in the mainstream health care system.

Chiropractic is one of the oldest and well-established alternative system of health care in the United States of America. Chiropractic has a massive patient base with close to 22 million people availing chiropractic services alone in the United States due to its holistic approach which primarily focuses on using the innate homeostatic powers contained within the body to promote self-healing. An estimated 80% of the population in the United States suffers from one or other form of Neuro-musculoskeletal disorders of which 10% are diagnosed with chronic and recurring symptoms. Amongst the list of musculoskeletal disorders, back pain tops the charts with more than 60% cases followed by arthritis, neck and shoulder pain, and migraine. Not only have these conditions, taken a heavy toll on the general wellbeing of the people, but also burdened the economy with an added expenditure of $65 billion per year. Hence, strong attempts are being made to define the absolute and relative value of chiropractic approach in treating these musculoskeletal disorders.

Until the 1950s, the chiropractic profession was isolated from the mainstream health care system due to the lack of awareness and remained confined to the North American region. In U.S and Europe, there was another alternative medicine called osteopathy that emphasizes massage and other physical manipulation of muscle tissue and bones. Integration of chiropractic into the health care system was essential to improve the cost effectiveness and efficiency of providing appropriate and sustained health care to the population. During the 60s and 70s, a positive change was observed when foundations were established for better acceptance of chiropractic treatment, improved educational and licensing standards, evidence based research, legal recognition, and regulation in all U.S. states and other countries.

Currently, more than 100 years after its birth, chiropractic is taught and practiced throughout the world and has received broader acceptance from the public and national healthcare systems. People have started valuing chiropractic services due to high success in alleviating neuromuscular pains and maximum satisfaction rate. Increasing demand for chiropractic services has encouraged medical professionals to acquire qualifications and expertise in chiropractic treatment in addition to their regular qualifications. Consequently, many countries are introducing chiropractic principles of health care and therapeutic interventions into national health systems for management of common musculoskeletal conditions and overall improvement of general health.

Chiropractic is now being widely accepted as one of the crucial segments of complementary medicine. The World Health Organization (WHO) encourages and supports the safe and effective use of chiropractic care. In an attempt to standardize the practices and ensure safety, WHO has taken a profound interest in establishing guidelines and strict regulations to ensure that the masses are provided with the best of care.

In this overview of chiropractic, we analyze its history, theory, development, and its approach towards the art of medicine. We indicate that evidence-based chiropractic care is growing as an
effective method to the treatment of musculoskeletal problems and the chiropractors are becoming a critical part of the multidisciplinary health care system. This paper emphasizes on the training and educational requirements that the doctors of chiropractic has to undergo in areas of diagnosis and clinical sciences with major importance on musculoskeletal diagnosis and treatment. We describe and promote the safety aspects of chiropractic treatment and its positive effect on quality of life. The paper also outlines the rules of regulation and utilization for practicing chiropractic services. Strong scientific evidences are also provided in the report that proves that the chiropractors can function as primary spine care specialists. However, the paper also indicates that despite the presence of strong scientific evidences in support of chiropractic approach, this practice is not fully grown and adapted in many countries and therefore needs special attention.

To understand the current scenario of chiropractic treatment in India, we have reported how the chiropractic approach has established in the country and where its legal status is positioned around the globe. Although, chiropractic approach has endured, grown and sustained in European, Australian and American countries, it needs more focus in many other countries including India, especially in establishing stronger policies and regulations. Overall, a robust approach in integrating chiropractic treatment as a main stream in the health care sector along with other health systems available is required in such countries.

**THE ORIGIN OF CHIROPRACTIC HEALTH SYSTEM**

1.1 The emergence of chiropractic health system: its antecedents and origins

Although the earliest recordings of spinal manipulations were depicted in ancient Greek civilization dating over 4000 years ago, the actual discovery of chiropractic can be attributed to Daniel David Palmer (famously known as “DD Palmer”) in the year 1885. His major contribution towards chiropractic was the codification of the core philosophy that form the foundation of the entire chiropractic way of healing. He provided the scientific rationale for various forms of chiropractic manipulations through his extensive study of the anatomy and physiology of the human body. In the year 1897, he established the world’s first school for the training of chiropractors called as Palmer School of Cure (currently named as Palmer College of Chiropractic) in Davenport, Iowa, USA.

In 1937, there began a worldwide call to establish a chiropractic hospital at the Palmer School of Chiropractic (PSC), with the following words.

The origin of chiropractic practice in India

1.2 The origin and history of chiropractic health system in India

Historical context: From ancient times, healers understood the relationship between the spine and the overall health of a person and were referred to as “bone setters”. A bone setter is one who manipulates and makes adjustments to the skeleton, including

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The term “chiropractic” is originated by joining the two Greek words cheir (hand) and praxis (practice) that describes a “treatment done by hand.”

“Does not the reader agree with me that the next great step forward ought to be the establishment at the PSC of a wonderful Chiropractic Hospital, to which patients of all classes, from every nation, could come, and in which they would be nursed back to health under competent chiropractic services?”

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the spine for reducing dislocations and fractures, thus helping to improve the overall health of a person. In India, the practice of “bone-setting” which is referred as chiropractic practice today was actively performed by Vedic healers and eventually became a part of Ayurvedic known as “Bhagna Chikitsa”.

One historical example in Indian context was when the Father of the Nation - MAHATMA GANDHI also recognized the importance of the spine and nervous system in treating health problems and acknowledged the need for chiropractors. Mahatma Gandhi was suffering from high blood pressure for many years prior to obtaining his first adjustment in 1942. He took chiropractic treatment for a period of 90 days that helped him to fully recover from his hypertensive condition.


**HIPPOCRATES**
Greek Physician, Father of Modern Medicine

“Look well to the spine for the cause of disease”
(Source: http://totallychiropractic.net/wellness-library/about-chiropractic/)

**Dr. SID WILLIAMS**
Founder, Life Chiropractic College, USA

“Chiropractic should be universally utilized as a major tool for disease prevention, extending longevity, improving the health of children, of working adults, of athletes, and of aging people alike.”
(Source: http://www.cecruncher.com/latest+news/?srow1=75)

**Dr. SHIV BAJAJ**
Doctor of Chiropractic in New Delhi, India
(Founder and Clinic Director of Back2Health, New Delhi, India)

“Spinal manipulation is believed to have 3 major and very powerful effects. First: it restores the proper orientation of a joint and clears out motion restrictions allowing a joint to move freely. Second: a chiropractic manipulation is believed to cause a release of Endorphins or the body’s natural pain killer or feel good hormone. Third: it causes a reflex relaxation of tight muscles surrounding the joint”.
(Source: http://drshivbajaj.blogspot.in/)

**Dr. MICHEL TETRAULT**
Executive Director, Chiropractic Diplomatic Corps, Canada

“Chiropractic is a holistic profession focused on identifying the causes of disease or lack of health associated in many cases with faulty lifestyle, but those mostly caused by spinal misalignments that create nerve interference, the undetected cause of many health problems.”
(Source: http://www.docmikeblog.com/)

1.3 Position of societies and academies
Chiropractic emerged as an independent and recognized profession in the United States in the 1890s. Today, numerous chiropractic educational institutions have been set up in more than 100 countries, increasing the number of chiropractors throughout the globe. Ninety countries have established national associations for chiropractors which are official members of the World Federation of Chiropractic (WFC) - a non-governmental organization in official relations with the WHO.

Worldwide, 41 recognized educational programs are offered in countries that include USA (17), Australia (4), Brazil (2), Canada (2), Chile, Denmark, France, Japan, Malaysia, Mexico (2), New Zealand, South Africa (2), South Korea, Spain (2), Switzerland, and the UK [3].

1.4 Chiropractic health system in the world
The United States holds the distinction of having the largest number of chiropractors (75,000) followed by Canada (7,250), Australia (4,250) and the United Kingdom (3,000). Other countries with more than 250 chiropractors include Brazil (700), Norway (600), Denmark (550), France (450), Italy (400), Japan (400), the Netherlands (400), New Zealand (400), South Africa (400), Sweden (400), Spain (300), and Switzerland (275). There are smaller numbers of qualified chiropractors in other countries as well. Chiropractic health system is the third largest primary health care profession in the world after medicine and dentistry.

**KEY FINDINGS**

❖ Today, the United States alone has more than 60,000 chiropractors actively practicing spinal manipulations and many other countries such as Canada, Great Britain, Australia, Japan and Switzerland have also officially recognized chiropractic, opening doors for the study and application of chiropractic principles of healing.

❖ Chiropractic health system is the third largest primary health care profession in the world.
OVERVIEW OF CHIROPRACTIC HEALTH SYSTEM

2.1 Definition of chiropractic and role of chiropractor

According to the American Chiropractic Association (ACA), chiropractic care is defined as a “health care profession that focuses on disorders of the musculoskeletal and the nervous system and the effects of these disorders on whole body health.”

The Association of Chiropractic Colleges (ACC) defines chiropractic as a “health care discipline which emphasizes the inherent recuperative power of the body to heal itself without the use of drugs and surgery.”

WHO defines chiropractic as “A health care profession concerned with the diagnosis, treatment and prevention of disorders of the neuromusculoskeletal system and the effects of these disorders on general health. There is an emphasis on manual techniques, including joint adjustment and/or manipulation with a particular focus on subluxations.”

According to Mayo Clinic Chiropractic adjustment is a procedure in which trained specialists (chiropractors) use their hands or a small instrument to apply a controlled, sudden force to a spinal joint. The goal of chiropractic adjustment, also known as spinal manipulation, is to correct structural alignment and improve your body’s physical function.
Fig 2.1: Major Indications of Chiropractic Health System

<table>
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<th>Indications</th>
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<tr>
<td>KNEE PAIN</td>
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<td>HEADACHES &amp; MIGRAINE</td>
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<tr>
<td>LOWER BACK, NECK AND SHOULDER PAIN</td>
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<tr>
<td>ANKLE AND FOOT PAIN PLANTAR FASCIITIS</td>
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<tr>
<td>SPORTS INJURIES</td>
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<td>SCIATICA</td>
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<tr>
<td>TENNIS AND GOLFER’S ELBOW NUMBNESS AND TINGLING</td>
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<td>MUSCULAR IMBALANCES, REPETITIVE STRESS INJURIES AND PATELLO-FEMORAL CONDITIONS</td>
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Fig 2.2: Major Benefits of Chiropractic Health System

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<th>Benefits</th>
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<tr>
<td>Restore normal movement of the spine</td>
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<td>Improve immune system</td>
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<td>Enhance physical function and performance</td>
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<td>Prevention through education, not through medication</td>
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<tr>
<td>Reduce pain</td>
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<tr>
<td>Relax the muscles</td>
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<tr>
<td>Decreases the need for surgery &amp; Reduce pharmaceutical costs</td>
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<tr>
<td>Improve proper nerve conduction</td>
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<tr>
<td>Decreases workday loss</td>
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<tr>
<td>Reduce hospital admissions and stay</td>
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<tr>
<td>Improve joint coordination</td>
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<tr>
<td>Triggers body’s ability to heal</td>
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<tr>
<td>Increase range of motion</td>
</tr>
<tr>
<td>Improves sleep</td>
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<td>Relieve stress</td>
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Doctors of chiropractic, referred as “chiropractors” specialize in manual techniques that involve joint manipulation and adjustment with a specific focus on subluxation. The practice of chiropractic focuses on the relationship between the structure (primarily the spine) and function (as coordinated by the nervous system) and how the relationship affects the preservation and restoration of health of the person. In other words, chiropractic approach the body as a Neuro-musculoskeletal system in which disorder of one part of the system disturbs the other parts of the body. As a result, when disorders in the body are eliminated, stresses exerted on the body’s nervous system can be alleviated and general health can be restored. This forms the basis for the philosophy of chiropractic treatment. The main elements of the chiropractic philosophy are explained below:

**Fig 2.3:** The main elements of the traditional philosophy of chiropractic treatment as stated by ACC in 1996

**PHILOSOPHY OF CHIROPRACTIC TREATMENT**

- **Philosophy of chiropractic treatment**
- **Natural healing art**
- **Skilled manual assessment and correction (Spinal Manipulation)**
- **Nervous system - Principal regulatory system**
- **Subluxation - Major hindrance for health**

**KEY FINDINGS**

- These elements were included in the ACC paradigm of chiropractic which was unanimously agreed and subsequently endorsed by the American Chiropractic Association (ACA), the International Chiropractors Association (ICA) and the World Federation of Chiropractic (WFC).

**Fig 2.4:** According to the WHO Guidelines, Models of chiropractic education is grouped into four categories

<table>
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<tr>
<th>CATEGORY</th>
<th>Description</th>
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<tr>
<td>CATEGORY I (A)</td>
<td>A four-year full-time programme within specifically designated colleges and universities.</td>
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<tr>
<td>CATEGORY I (B)</td>
<td>Programmes for persons with prior medical or other healthcare professional education.</td>
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<tr>
<td>CATEGORY II (A)</td>
<td>Conversion programmes for persons with prior medical or other health care professional education to acquire a limited chiropractic educational qualifications.</td>
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<tr>
<td>CATEGORY II (B)</td>
<td>In these programmes, the course content and length may vary depending upon the applicants previous training and experience.</td>
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**2.2 How chiropractic treatment, education and training is on par with modern medicine systems**

The Requirements for getting trained as a doctor of chiropractic differ from country to country. The undergraduate program for most of the chiropractic colleges require a minimum course of 4 full-time academic years, followed by mandatory postgraduate clinical training and/or licensing exams. The academic degree for chiropractors is called the “Doctor of Chiropractic”, referred to as “DC”. In the United States, Canada and Australia, licensing or registration are done at the state level before practicing. Chiropractic schools are accredited through the Council for Chiropractic Education (CCE) and regional accreditation agencies. (CCE is the agency certified by the U.S. Department of Education to accredit chiropractic colleges in the United States).

- International standards of education for chiropractic treatment have been adopted through a network of internationally recognized agencies that began with the US Council on Chiropractic Education (CCE), authorized by the US Office of Education in 1974. These standards have been included by WHO in its Guidelines on Basic Training and Safety in Chiropractic (2005).

Have you ever wondered how much education your “Doctor of Chiropractic” has to complete? These facts will surprise you.
There are scholarships available to promote chiropractic in India. India IACD scholarship is two concurrent scholarships of 100% tuition credit to eligible chiropractic applicants from India. Selected candidates will be able to do their chiropractic course at Life Chiropractic College West, Hayward, California. These kind of academic support always helps to increase awareness about the chiropractic health system and its promotion.

Details of a typical semester based chiropractic programme, conversion programme and standardization programme are explained in Annexure I.

**KEY FINDINGS**

- As primary healthcare practitioners, the "Doctor of Chiropractic" has to undergo high level of education and training in areas of diagnosis and clinical sciences with major emphasis on musculoskeletal diagnosis and treatment.
- Like other primary health care doctors, chiropractic students spend a significant portion of their curriculum studying clinical subjects related to evaluating and caring for patients.
- Regular chiropractic course is a four year course where the candidate for the doctor of chiropractic degree will have to complete more than 4,400 hours and the major subjects taught include anatomy, neurology, physiology, pathology.
- Chiropractors are therefore necessarily equipped by their education and training to carry out spinal manual therapy.

**TRAINING OF CHIROPRACTORS**

The chiropractic care training program is designed to facilitate the development of chiropractic clinicians in an integrative medical setting with an emphasis on advanced clinical training and academic practices.

- The training of chiropractors includes certain academic and administrative considerations. This includes:
  - Who could be trained?
  - What would be the practitioner’s role and responsibilities?
  - What education would be necessary?
  - Where adequate education be provided and by whom?
  - Should new programmes need to be developed or existing courses be strengthened and modified?
  - Would there be any mechanisms for official recognition of practitioners, programmes, educators and institutions?

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**2.3 How Chiropractic health system is part of all modern pain management protocols**

Chiropractic adjustments also referred as "spinal manipulation" or "manipulation therapy" is a type of complementary and alternative medicine (CAM) that focuses on the assessment and treatment of pain symptoms related to the musculoskeletal and nervous system. Generally, patients seen by chiropractors seek care for musculoskeletal pain, mainly focusing on back pain, neck pain, and headaches. Chiropractic treatment is also beneficial in the treatment of painful extremity disorders such as sprain and strain injuries including cases of visceral pain disorders like infantile colic, dysmenorrhea, and otitis media.

Chiropractic adjustment or manipulation is a manual procedure that utilizes the highly refined skills developed during the intensive years of chiropractic education. The chiropractor typically uses his/her hands to manipulate the joints of the body, particularly the spine. Controlled forces are then applied to specific joint areas to treat and relieve the pain. This primarily involves the body’s adjustments that enable to correct the internal structural alignment of the body. Thus, chiropractic practice focuses mainly on the conservative management of neuromusculoskeletal system disorders without the use of medicines and any form of surgery.

Only after a thorough review of the medical history and physical examination, the chiropractor will design an appropriate treatment plan specifically customized to the patient’s body and needs. The various management programs involved in the chiropractic are depicted in Fig 2.5.

**Fig 2.5: Various management programs involved in the chiropractic treatment plan are**

- Soft-tissue manual treatments
- Use of physical therapy modalities
- Other supports
- Rehabilitation exercises
- Lifestyle modification
- Patient education
• **Soft-tissue manual treatments** – These treatments include modalities to improve soft tissues healing and pain controls, for example electrical stimulation, ultrasound and traction.

• **Use of physical therapy modalities** – Involves strengthening and/or stretching exercises to improve muscle balance, strength and coordination.

• **Patient education** – Involves education programs to improve posture and motor control and other health conditions like stress, depression and anxiety.

• **Lifestyle modification** – Recommendations regarding fitness regimes, stretching exercises, posture correction, weight loss advice, and diet modification are all part of lifestyle modification in chiropractic counseling.

• **Rehabilitation exercise** – Rehabilitation exercises are also a crucial element of chiropractic management program as these exercises help in improving all joint, muscles, neck and back problems especially during the recovery from any sport or accidental injuries.

• **Other supports** – Other treatment support includes massage, heat/cold application, diet programs etc

**KEY FINDINGS**

- Chiropractic is a branch of CAM specialized in the correction by spinal manual therapy. They perform spinal diagnosis and therapy at a sophisticated and refined level.

- Along with the various management programs employed in chiropractic care “Doctors of chiropractic (DC)” also recognize the worth and responsibility of working in cooperation with other health care providers to provide the best results for their patients.

- Chiropractic treatment when integrated with other health programs enables better management of musculoskeletal problems.

2.4 How chiropractic helps in improving quality of life

A healthy community is one in which all the systems, including healthcare system work together as a single team to impart high quality of life for every individual. This means that, the health of every individual in a community is affected widely by the quality of the health care facilities available. The fraternity of health care professionals, especially chiropractors play a crucial role in providing adequate and satisfactory health care services to the society. Chiropractors help in alleviating health issues by limiting aggravated injuries, reducing pain, and restoring any lost musculoskeletal functions to enable people to achieve and maintain a functional and healthy lifestyle. A study by Wenban, 2003 showed chiropractic practices had a positive effect on patient’s lives. There are a number of such studies that have revealed the role of chiropractic treatment in the alleviation of pain and tackling a variety of medical conditions.

A few studies are listed below:

- Coulter et al, 2002 supported that patients with musculoskeletal symptoms seek mostly chiropractic care for their recovery. Chiropractic services are fairly accepted and are well-integrated part in the Danish primary health care system.

- According to Leboeuf-Yde C et al, chiropractic became the first line of choice therapy in Sweden for those who had not previously experience this treatment.

- A study published in the Journal of Manipulative and Physiological therapeutics in 2008 indicated chiropractic therapy helped in reducing symptoms in patients with chronic low back pain and consequently improved their functions, speeded recovery and outcomes as well minimized episodic recurrence.

**Fig 2.6: Famous personalities who used chiropractic treatment**

Take a moment to read some of the statements made by athletes and famous personalities about how chiropractic care has relieved them of pain and enhanced the quality of life.

- **Tiger Woods: World’s greatest Golfer**
  “I’ve been going to chiropractors for as long as I can remember. It’s as important to my training as practicing my swing.”

- **Joe Montana: Three time Super Bowl MVP**
  “Chiropractic care works for me. I’ve been seeing a chiropractor and he’s really been helping me out a lot. Chiropractic’s been a big part of my game.”

- **Arnold Schwarzenegger: Athlete, Actor and Governor of California State**
  “There is really no better profession than chiropractic. You really helped me. I depend on chiropractic and so does my whole family. I found it was better to go to the chiropractor before you get injured. Chiropractic is truly one of the few professions that really helps people in a straightforward way with no monkey business, like some of the other professions promise to help, but this chiropractic is the real thing. That’s what chiropractors do, take care of people like no other kind of healers.”

- **Tom Brady: Quarterback – New England Patriots; 3 times Superbowl Champion and 2 time Superbowl MVP**
  “Chiropractic just makes you feel so much better. When I walk out of the clinic, I feel like I’m about three inches taller and everything’s in place. And as long as I see the chiropractor, I feel like I’m one step ahead of the game.”

- **Dan O’Brien: Decathlon Gold Medalist**
  “If it were not for chiropractic, I would not have won the gold medal.”
Mel Gibson: Hollywood Actor
“I got a chiropractor to come along to the shoot, because they can actually stick you back together within 15 minutes.”

Andy Griffith: Actor
“Chiropractic has advanced tremendously over the past few decades. It has grown by leaps and bounds to become a specialized and accepted science.”

Dr Phil McGraw: Psychologist, TV personality
“The only way to truly fulfill your life potential is to fulfill your health potential. Chiropractors see patients as people, not just disease.”

Michael Jordan: Professional Basketball Player
“Since I have been in chiropractic, I have improved by leaps and bounds both mentally and physically.”

2.5 How Chiropractic is safe, effective and economical
A well-recognized health system always has safety, efficacy and cost-effectiveness. As all treatment procedures require thorough medical history, diagnosis and treatment plan, chiropractors too believe in following the same procedure. Hence, chiropractic manipulations are safe and effective when used skilfully and appropriately. There are some complications associated if chiropractic treatment is not performed by trained and licensed chiropractors.

However, chiropractors must rule out the contraindications to any treatments, including its adverse effects. Below are a few medical conditions when chiropractic treatments are not recommended:

- Severe osteoporosis
- Cancer of the bone
- Arthritis or gout
- Diabetic neuropathy
- Acute Fractures
- Compression of the nerves in the spinal cord

Although chiropractors cannot recommend manipulation of bones and soft tissues in the above conditions, other interventions such as lifestyle modification, diet advice and appropriate exercises can be suggested.

Reports from a randomized trial conducted in UK for cost effectiveness of physical treatments for back pain shows that, the patient received chiropractic therapy had lower relative treatment costs and experienced more treatment benefits compared to those treated with general medical care. Randomized controlled trial of primary care - cost effectiveness of physiotherapy, chiropractic therapy and general practitioner care for neck pain indicates faster recovery by chiropractic therapy than the physiotherapy and general practitioner care categories. Moreover the cost of care for chiropractic therapy ranged around one-third of the physiotherapy and general practitioner patient groups29. There are study report shows superior effect of chiropractic therapy on treatment with muscle relaxants for pain32. In chronic spinal pain, chiropractic therapy shows greater short-term improvement compared to acupuncture or medication33.

The following are the reports of the cost comparison study of chiropractic versus medical management conducted by Jarvis, et al. in 3062 back injury cases34.

- Chiropractic care was 73% more cost effective in the case of back injury.
- The average distribution cost per office visit was 67% less for chiropractic than for the medical office visit.
- Patients consulting doctors of chiropractic were able to return to work 10 times sooner than those under medical care.
- Cost comparison for back injury were tenfold less for chiropractic claims.

KEY FINDINGS
- Chiropractic treatment or spinal manual therapy in the hands of a registered chiropractor is always safe.
- It is evident that, chiropractic health system shows efficacy as well as cost effeteiness with better patient satisfaction.

2.6 Seven fundamentals
In Life when we have fundamentals to live by there is order and consistency. Champions know this very well. It’s in the understanding first of what fundamentals truly mean followed by a commitment of excellence and a daily practice of discipline towards mastery. Fundamentals simply mean: basics, rudiments, essentials, details, ground rules. In order to have a healthy and successful life, we all must have fundamentals. It is our compass for success in every area of our life. Chiropractic has known that there are 7 fundamentals that essentially give our population facts for a clear understanding about the spine; the nervous system; injuries to the spine; vital functions; and what causes the silent killer: subluxations.

ONE SPINE
- We have been given one spine and one spine only
- It protects the central nervous system
- It is freely movable
- It keeps our bodies upright and erect
- It is important for posture
- It has discs for absorption of gravity and openings for nerve pathways to send messages to the entire body for proper function
NERVOUS SYSTEM (BRAIN/SPINAL CORD AND NERVES)
- The nervous system consists of the Brain; spinal cord and nerves
- It is the most important system in the body and it’s the first to form
- It controls and coordinates every organ/cell/system in our bodies

NERVOUS SYSTEM (SPINE FUNCTION AT ITS BEST ALL THE TIME)
- The spine goes through 4 basic changes to create misalignment: SUBLUXATION
- Physical injury; Toxin; Nutrition; Emotional/Mind

INJURY (SPINE/JOINTS): SUBLUXATION (MISALIGNMENT SHORT OF A DISLOCATION)
These 4 types of injuries create subluxation
- Trauma at birth
- Hi-force; Hi-impact
- Unnatural/ heavy loading
- Chronic bad ergonomics/posture

5 VITAL FUNCTIONS OF THE SPINE
- Spine houses and protects the nervous system
- It is structured for muscle attachments allowing for movement-posture-and support
- Its support foundation is for weight bearing and it is upright
- Protection of nerves
- Absorption of impact

7 BODY SIGNS OF SUBLUXATION
- Pain
- Swelling and inflammation
- Muscle imbalance-stiff/ache
- Nerve interference-disturbance
- Poor motion/fixation/decrease range of motion
- Posture distortion and gait
- Overtime loss of sensation-numbness and tingling

UNCORRECTED SUBLUXATIONS CAUSES DEGENERATION OF THE SPINE
- A normal spine is movable and not fixed and allows the nervous system to function at maximum capacity.
- The first phase of degeneration is when the spine has been injured creating a subluxation. There are misalignments and the cascade of events of dysfunction from the above mentioned will start to occur within 14 days, if the injury is not corrected.
- The second phase of degeneration starts to show within 5 years: loss of disc height, occlusion of the nerves, and spur formation on the bones of the vertebrae.
- The third phase is after 14 years of an untreated subluxation. The vertebra show signs of severe occlusion of the nerves and definite loss of disc height and arthritic changes of the bone.

3.1 Scientific evidences to prove the effectiveness and superiority of chiropractic health system
There are a number of scientific evidences available in support of chiropractic treatment. Following are some of the crucial studies indicating the effectiveness of chiropractic care in the treatment of various diseases.

Lower back pain
According to WHO low back pain is a single largest cause of disability worldwide. Low back pain constitutes the majority of chiropractic practice. National and international evidence-based clinical guidelines have recommended chiropractic approaches as the first line of management for patients with acute or chronic low back pain that involves the use of spinal manipulation together with NSAIDs, patient education and motivation. Spinal manipulation has also been recommended in the guidelines formulated by the American College of Physicians and American Pain Society.

Neck pain and headache
There are a number of studies that have reported the safety and effectiveness of chiropractic management of patients with neck pain. A study funded by the U.S. National Institutes of Health showed that chiropractic treatment is more effective than usual medical care in managing acute and sub-acute neck pain condition in patients. Another study reported that patients with tension headaches experienced a sustained therapeutic benefit after chiropractic therapy was administered in comparison to amitriptyline therapy (which is associated with numerous adverse effects). The manipulative therapy also decreased the dependency of over-the –counter painkillers after the culmination of the treatment period.
Prenatal and postnatal care

During the pregnancy period, there will be postural adaptations, pelvic changes and increased back curve. This will lead to a misaligned spine and joints. Prenatal chiropractic care is highly beneficial throughout the pregnancy for easing the birth process and relieving pain. Postnatal care with chiropractic can restore normal body balance and alignment thorough an easy and comfortable recovery process.

Asthma

The advantages of using the chiropractic procedure in the treatment of asthmatic patients were determined in a systematic review carried out by Kaminsky19 that showed asthmatic patients were benefited from this treatment and hence can be effectively used as a traditional medical therapy.

Sport injuries

A systematic review evaluating the chiropractic effectiveness in prevention and treatment of sports injuries, found that chiropractic is effective in prevention of lower limb muscle strain, lateral epicondylitis (tennis elbow) and hallux adducto valgus (bunion) when compared to other conventional treatment modalities17.

Infant colic

Systematic reviews of random clinical trials have revealed that chiropractic care has been effective in the treatment of infant colic, however, more studies, both in quantitative and qualitative chiropractic data in the area of pediatric care are required18,19.

3.2 How different is chiropractic treatment protocols compared with other treatments?

The chiropractic approach displays both similarities and differences when compared with other standard approaches adopted by other fields of medicine. Chiropractors are trained on the same lines as medical practitioners in terms of clinical evaluation of the patient and recording of medical history. They are trained to identify symptoms and signs, perform a thorough physical examination, identify the cause and arrive at a diagnosis to treat the particular diseased condition. However, their approach towards treating any health condition differs as they evaluate individual symptoms and treatment are based upon the relationship between the spine and other body functions; their main goal is to provide a sustainable balance of health and not just elimination of symptoms. In chiropractic, the recovery and treatment are based upon the relationship between the spine and other body functions; their approach is to eliminate the source of pain than just eliminating the symptoms. Chiropractic approach to musculoskeletal pain involves evaluating the site of pain in a regional and whole-body context. Despite problems such as shoulder, elbow and wrist pain can be caused due to injury or infection, pain in and around these body parts can originate due to segmental dysfunction of the spine. Similarly, in some cases the source of hip, knee and ankle pain may lie in the lumbar spine or sacroiliac joints. Additionally, similar to general physicians, chiropractors are trained in state-of-the-art diagnostic techniques and other chiropractic examination procedures. Chiropractors use this information in their treatment plan which is based on the intricate structural and functional interplay between different parts of the body.

3.3 Healthcare economics of chiropractic health system

Pain is one of the most common universal public health problem with a heavy economic burden. Data from Center for Disease Control and Prevention (CDC) suggests that causes of pain included low back pain 28.1%, knee pain 19.5%, migraines 16.1%, neck pain 15.1%, shoulder pain 9.0%, finger pain 7.6% and hip pain 7.1%. Alone in the United States, it has been estimated that pain costs the society at least $560-$635 billion annually20.

As per IMS Institute of Healthcare informatics, total healthcare spending in the United States increased from $308.63 billion in 2010 to $319.9 billion in 2011. According to the study, back pain was the leading cause of disability under 45 years old. In 2014, around 28,000 Americans died from unintentional drug poisoning and of these, approximately 14,000 involved prescription pain relievers21.

Fig.3.1 Cost comparison of chiropractic health system v/s allopathic health system for sciatic condition / slipped disc (Surgical Case)
KEY FINDINGS

- The data depicted in the above suggests that chiropractic treatment for spinal pain is more cost effective compared to conventional allopathic treatment.
- Chiropractic increases the overall savings by reducing the intake of prescribed narcotic analgesics which in turn reduces the overall treatment cost for the patient.
- Additionally, chiropractic treatment is a safer option compared to narcotic analgesics as it does not have any adverse side effects. Therefore, we can conclude that those chiropractic adjustments are very efficient and cost effective in treatment of pain compared to conventional treatment modalities.

4

STATUS OF CHIROPRACTIC TREATMENT IN INDIA

4.1 Chiropractic status in India

In the year 2005, The Indian Association of Chiropractic Doctors (IACD) was accepted as a national member for India under the constitution and by-laws of the WFC. The main purpose of IACD is to provide the awareness and importance of chiropractic treatment in India and to establish the integrity of this profession by providing high quality care, a comprehensive range of services, convenient and timely access to chiropractic treatment. This organization aims in improving the health of Indian patients by resolving health issues such as low-back pain, neck pain and headaches through drug-free treatment options.

However, according to the Table 4.1 we can clearly see, the legal status of the chiropractic profession in India is not as strong as compared to other countries such as USA, Australia and Canada and therefore needs attention.
Table 4.1: The legal status of the chiropractic profession by country

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<tr>
<th>African Region</th>
<th>European Region</th>
<th>Latin American Region</th>
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</thead>
<tbody>
<tr>
<td>Botswana, Ethiopia, Ghana, Kenya, Lesotho, Mauritius, Namibia, Nigeria, South Africa, Swaziland, Zimbabwe</td>
<td>Belgium, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Malta, Netherlands, Norway, Portugal, Russian Federation, Serbia, Slovakia, Spain, Sweden, Switzerland, United Kingdom</td>
<td>Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Mexico, Panama, Peru, Venezuela</td>
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<tr>
<td>Asia</td>
<td>China, Hong Kong – SAR, China, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, Vietnam</td>
<td>North American Region</td>
</tr>
<tr>
<td></td>
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<td>Bahamas</td>
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<tr>
<td></td>
<td>Asia</td>
<td>Barbados, Belize, Bermuda, British Virgin Islands, Canada, Cayman Islands, Jamaica, Leeward Islands, Puerto Rico, Trinidad &amp; Tobago, Turks &amp; Caicos, United States, US Virgin Islands</td>
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<tr>
<td></td>
<td>Asia</td>
<td>Pacific Region</td>
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<tr>
<td></td>
<td>Asia</td>
<td>Australia, Fiji, Guam, New Caledonia, New Zealand, Papua New Guinea, Tahiti</td>
</tr>
</tbody>
</table>

Source: World Federation of Chiropractic

KEY FINDINGS

- Legal status and regulations for chiropractic practice differ considerably from country to country.
- A total of 48 countries have passed legislations to recognize and regulate the chiropractic profession. In these countries formal university degrees are offered where the recommended educational qualifications are generally consistent, meeting the requirements of the respective accrediting agencies.
- On the contrary, other countries have legislated chiropractic practice as a standalone “chiropractic act” or included as a part of the mainstream health care disciplines or under complementary and alternative medicine disciplines.
- The implementation and adoption of the minimum requirements required for practicing chiropractic treatment will depend on individual country situations. Currently, only 14 countries have authorized the use of the title “doctor” and 4 countries the title “physician” according to the WFC records.
- Stronger policies and regulations are required to establish more successful chiropractic practice in other countries including India.

4.2 Opportunities for doctor of chiropractic in India

In 1947, the late Dr. Raghubhai Shastri was the first Indian to graduate in chiropractic education from the National College of Chiropractic, Chicago, USA. He established his chiropractic clinic in Opera House, Mumbai during the late 1940’s. He treated many famous personalities such as Mahatma Gandhi, Morarji Desai, Vasantdatta Patil etc. who were benefited from his chiropractic practices.

There are huge opportunities in India for chiropractic growth. Dr. Amit Nanda, President and Dr. Vidur Kumar Jain, Vice-President of Indian Association of Chiropractic Doctors (IACH) are encouraging the youngsters to take up a career in chiropractic sciences and are making important contributions to the development and overall growth of chiropractors in India.

All students who have completed at least four years of professional study following an undergraduate recognized university degree can join and become a member of IACH and can spread the awareness of chiropractic care in India.

4.3 The growth of chiropractic health system in India

Although chiropractic originated in the U.S. in 1895, due to its high demand and success in treating especially musculoskeletal diseases, it is currently growing rapidly in other countries such as the UK and Australia. Unfortunately the growth of chiropractic treatment is painfully slow in India and only a few chiropractors (holders of D.C degree- Doctor of chiropractic) are practicing in major metros of India.

The Indian Association of chiropractic Doctors (IACD) represents 12 chiropractor clinics in India - 4 in Bangalore, 4 in Delhi, 2 in each Goa and Gujarat. Chiropractic education is gradually making inroads in India and many chiropractic doctors trained from USA, Canada and Australia are practicing in India.
IACD’s mission is to promote chiropractic awareness and its importance among the public in India, and to establish the integrity of the profession by providing high quality care, a comprehensive range of services, convenient and timely access with exceptional service and compassion. IACD is putting effort to develop and assist in starting the first accredited chiropractic program in a university in India. Also, they are collaborating with very prominent surgeons in India who is pushing to advance legislation in the profession. This can enhance the interprofessional relationship among chiropractors and other healthcare professionals. Another important strategy by IACD is health camps. They are conducting health camps in various cities of India and that can promote awareness and access of chiropractic health system to the public. IACD is working to establish chiropractic as a mainstream healthcare profession in India. For this they are attracting many Indian chiropractors who work in foreign countries, where chiropractic health system is well established.

### 4.4 Scope of collaboration with other healthcare systems for an integrated multi-disciplinary approach

Collaboration always mutually benefits and helps to achieve common goals. A large proportion of chiropractors are solo practitioners. Management of most of the chronic diseases or complex conditions needs multidisciplinary treatment approach. Especially in the case of musculoskeletal diseases, complete cure and patient satisfaction is an unmet challenge. Here comes the importance of a collaborative approach to achieve maximum patient satisfaction and reduction of relapse. There is a wide range of possibilities for the collaboration of the chiropractic health system with other medicine systems for better patient care and outcome.

An association of chiropractors with orthopedics and physiotherapy professionals, especially in pain management, rehabilitation and sports injuries can structure safe and cost-effective therapeutic plans. Mutual review of the entire patient record helps to develop a treatment plan and strategies for the management of the condition. Generally manipulation of the spine and surrounding soft tissues can bring the body back to normal alignment. This will result in proper nerve signals and impulse flow. In nerve-based back pain, the most common reason for spinal misalignment is the muscle imbalance. These imbalances cannot address effectively through the spinal manipulations performed by chiropractors. Here comes the need for a collaborative approach with a physiotherapist for muscle imbalance therapy. This joint approach can successfully manage nerve-based back pain.

There is an association between chiropractic profession with complementary and alternative health disciplines in developing competencies for interprofessional practice through the Academic Consortium for Complementary and Alternative Health Care (ACCAHC). These kind of co-operations, enhance the education, awareness and interprofessional relationships of chiropractors along with other healthcare professionals.

A formal referral from a general physician to a chiropractor is not in an active state. Unwillingness to refer a patient to the chiropractor is still exist. This is mainly because of the lack of awareness about chiropractic and its acceptance as a legitimate health profession. There is a huge communication problem in interprofessional relationship with chiropractors. General practitioners can refer to chiropractic for back pain, musculoskeletal conditions, and spine & neck problems. Usually referrals to chiropractor happens only in chronic musculoskeletal pain that does not respond to conventional treatments. Formal referral policies and procedures are required for ensuring cross disciplinary standards of care between general physicians and chiropractors. Ultimately, this will result in outstanding patient outcome and wellbeing.
Fig 4.2: Advantages of collaborative care with Chiropractors

- Better patient care and outcome
- Most appropriate and effective treatment selection
- Limiting the fragmentation of care
- Optimizing the continuity and efficacy of the care
- Benefit to patient from an occupational and therapeutic perspective
- Enhanced patient safety
- Cost effectiveness

Chiropractic health system can be used in conjunction with other types of passive or active physical therapy. It is also used in combination with conventional therapy (such as physiotherapy, orthopedics and sports medicine) and as part of alternative and complementary therapies (chiropractic, applied kinesiology, osteopathy and soft tissue therapy).

**KEY FINDINGS**

- Chiropractor’s collaboration with other healthcare systems enhance better patient care, cost effectiveness and patient satisfaction.
- Interprofessional relationships also encourage awareness, education and trust.

**4.5 Regulations and utilization of chiropractic treatment protocols**

Many practitioners of chiropractic’s are practicing without proper training or certifications which are a matter of great concern in terms of safety. Such unregulated practices will not only cause irreversible harm to the beneficiaries, but also portray the chiropractic filed in a bad light. To curb malpractice and prevent fraud, the WHO has recommended respective governments of each country to develop national policies that will include legislation and regulation for chiropractic practice, and also rules for chiropractic education, training and licensing.

**Establishment of world federation of chiropractic**

In 1987, World Federation of Chiropractic, a non-governmental organization which has established official relations with the World Health Organization was set up. It is a national association of Doctors of chiropractic (DCs) representing 88 countries in 7 world regions. Similar regional organizations have been established such as the European Chiropractors’ Union (ECU – www.chiropractic-ecu.org) in Europe and the Latin American Federation of Chiropractic (FLAQ –www.flaq.org) in South America.

**Law**

The practice of chiropractic is regulated by specials laws in around 40 national jurisdictions that include in North America (Canada, United States), Europe (Belgium, Denmark, Finland, France, Italy, Norway, Portugal, Sweden, Switzerland and the UK), Australasia (Australia, China, New Zealand, Thailand), Latin America (Costa Rica, Mexico, Panama), the Eastern Mediterranean (Cyprus, Iran, Saudi Arabia, United Arab Emirates) and Africa (Botswana, Namibia, Nigeria, South Africa, Zimbabwe).

**Common features in all jurisdictions include:**

- Direct contact with patient (primary care)
- Right and duty to diagnose (i.e. right to perform and/or order diagnostic imaging)

**Utilization of chiropractic services**

Most of chiropractors usually practice in a solo or group practice, whereas a small number works in hospitals or physician’s offices. Chiropractors normally work full time, however, some may work...
in the evenings or on weekends to accommodate working patients. Self-employed chiropractors set their own hours.

4.6 Next steps for policy makers and regulatory authorities

Legal recognition and regulation in every health care system aims to protect patient safety, setting and monitoring standards of training, practice and conduct. Regulations and practice policies vary from country to country. United States of America, Canada and some European countries, chiropractic has been legally recognized. They have well established academic curriculum and formal university degrees. Many countries have not yet developed proper chiropractic education and established law to regulate the qualified practitioners. In India, the chiropractic health system is recognized, but legal status is unclear.

Lack of rules and regulations from authorities facilitates illegal and substandard chiropractic practices among the country. There are also possibilities of involvement of other healthcare professionals and lay practitioners may use the techniques of spinal manipulation and claim to provide chiropractic services, although they may not have standardized chiropractic training. Such kind of practices has been always a threat to the patient safety and recognition of the chiropractic health system. There are remarkable possibilities of patient exploitation and misconduct of the profession. All these scenarios demands the urgent need for the involvement of the regulatory authorities and establishment of defined rules and regulations.

Our regulatory authorities must take steps towards the recognition of chiropractic health system as a separate health system. We need to establish a well-defined curriculum and practice policies for chiropractic. Licensing authorities must be there to issue practicing license, facilitate continues education & training, and ensuring a well-established practice of chiropractic health system. To cover up all these circumstances, there is a high demand for a parliamentary act to recognize and regulate chiropractic health system.

A MESSAGE TO THE UNION HEALTH MINISTER

Chiropractic is one of the largest primary contact health care profession and actively performed in several countries worldwide. Similar to other healthcare practitioners, chiropractors are trained in state-of-the-art diagnostic as well as treatment techniques. It is evident that chiropractic treatment approach is safe, effective and economical. In India, legal status of chiropractic health system is unclear. There are lacunae in proper rules and regulations for the practice of chiropractic in our country. This creates a platform for the illegal and substandard practices among the country. There is an immediate need for appropriate rules and regulations for the practice of chiropractic in India. Moreover chiropractic has to be recognized as a separate healthcare system through a parliamentary act.

These recommendations are mandatory for the ideal recognition and practice of chiropractic health system in our country. Well established practice of chiropractic health system is an asset for our nation and our people.
PRESS COVERAGE OF CHIROPRACTIC TREATMENT IN INDIA

Press coverage is a written or recorded document with a purpose of spreading knowledge and news about the particular topic. Here are some of the press releases and news on websites regarding chiropractic treatment in India that will be beneficial in spreading awareness among the Indian population.

- An article “Chiropractic care can ease back-related leg pain” published in Delhi Daily News on Sep 16, 2014.
- An article “Going back to bone basics” was published by Parveen Chopra on 29 Apr 2006 which covered the interview with Dr. Ricky S. Rana about Chiropractic.
- An article “Chiropractically speaking” was published in The Times of India on Jun 21, 2003.
CONCLUSION

Pain caused due to various musculoskeletal disorders can be extremely uncomfortable and severely affecting the quality of life. In fact, low back pain is one of the major reasons for a patient to visit their primary health care physician. Additionally, low back pain is also the leading cause of disability worldwide. Generally, the treatment plan for musculoskeletal pains and disorders includes the use of harsh painkiller, muscle relaxants, physiotherapy and several times invasive surgeries. This radical approach towards pain management has become counterproductive as it only provides temporary relief and cause more damage in the long term. A huge majority of the populace is severely disabled due to either mismanagement or aggressive treatment of their pain conditions. Not only the recovery time taken delayed, but also creates a heavy economic burden on the individual.

Health care experts suggest that treatment for low risk cases should focus on addressing the pain and not just suppressing the symptoms. Chiropractic approach to musculoskeletal pain works exactly in the manner that involves assessing the site of the pain in a regional and whole-body context. Chiropractic treatment and the recovery are based upon the relationship between the spine and other body functions and it works by eliminating the source of musculoskeletal pain, rather than just eliminating the symptoms. And therefore chiropractor can fit better in the role as primary spine care specialists in treating various pains. There are a number of evidences that has proved that the chiropractic treatment is safe and effective in the treatment of musculoskeletal disorders. However, despite of such impressive scientific evidences, only few health centers have adopted chiropractic treatment to the fullest. Therefore more focus to integrate the chiropractic approach in the main health care system is needed.
Acceleration of research, enhancement of practice standards, effective collaboration with mainstream healthcare systems and patient oriented approaches are needed for the further development and recognition of chiropractic health system, especially in countries like India.

Globally, it is also observed that chiropractic has endured, grown and sustained in European, Australian and American countries. Their continuous existences suggest that it will continue to endure as an important component of health care in the United States. However, there is huge lacking space in the development of this treatment regulations and rules in many other countries including India. Therefore a strong approach that involves working together with patients, chiropractors and chiropractic networks is required in implementing the chiropractic approach in the health care system. This will enable to meet patient needs and addresses the musculoskeletal issues underlying a substantial amount of health care costs.

RECOMMENDATIONS

- Need for more funding for chiropractic education and research. Most of the chiropractic activity is currently being funded by the profession itself.
- Patients continue to experience financial barriers to access while choosing a chiropractor. This may be due to the exclusion from government and private health plans. Therefore, removal of financial barriers to patient access is required.
- In some countries, as chiropractors are successfully appointed in senior advisory and policy positions in healthcare system, similarly chiropractors in India should also be given administrative and policy making positions in the health care sector.
- Strong policies are also required to be built for chiropractic in public health and research section to improve its awareness and professional quality.
- There is huge scope for development of more educational program and universities. Including chiropractic as part of medical curriculum would help to widen the scope of chiropractic.
- Provide scientific and evidence based proof about chiropractic healing benefits to the people, health providers and policy makers so that chiropractic is not viewed as a “philosophical” field of science.
- Encourage mainstream health care providers to collaborate with chiropractors, so that a combined healthcare package can be offered to the patients with several conditions.
- Ensure strict policing of false or misleading advertising about chiropractic treatment. This will help to filter out frauds and quacks, giving credibility to certified and trained chiropractors.
- Allow chiropractors to contribute to public health projects and open up administrative roles in public and community health care management.
- A forum should be established to report the benefits of chiropractic, treatment outcomes, patient satisfaction and rating of chiropractors. This will help to maintain transparency and allow people make a sound decision regarding the use of chiropractic services.
RESOURCES FOR FURTHER UNDERSTANDING OF CHIROPRACTIC HEALTH SYSTEM

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<tr>
<th>Websites / Journals</th>
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<td>Indian Association of Chiropractic Doctors (IACD)</td>
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<td>Journal of Chiropractic Education</td>
<td><a href="http://www.journalchiroed.com/">http://www.journalchiroed.com/</a></td>
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<table>
<thead>
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<th>Videos</th>
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<td>Experience of chiropractors from UK</td>
<td><a href="http://www.lifechiropractic.co.uk/chiropractic-videos/">http://www.lifechiropractic.co.uk/chiropractic-videos/</a></td>
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<tr>
<td>Best demonstration of few chiropractic adjustments</td>
<td><a href="http://www.spine-health.com/treatment/chiropractic/videos">http://www.spine-health.com/treatment/chiropractic/videos</a></td>
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<tr>
<td>British Chiropractic Association - Chiropractic for Healthcare Professionals</td>
<td><a href="https://youtu.be/rJu03fVeJBI">https://youtu.be/rJu03fVeJBI</a></td>
</tr>
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</table>
1. What is chiropractic?
Chiropractic is one of the largest primary contact health care professions in Canada, with over 7,000 practicing chiropractors treating approximately four and a half million Canadians annually with drug free, non-invasive, hands-on care. Chiropractors assess disorders related to the spine, nervous system, and joints of the extremities and provide a diagnosis and treatment of these disorders. The primary goal of chiropractic manipulation, also referred to as adjustment, is to treat areas of decreased movements in the joints which can create a response in surrounding tissues (ligaments, muscles and nerves) in order to provide relief of pain and improvement in function. Manipulation or adjustment is a highly controlled procedure, which rarely causes discomfort. A chiropractor adapts the procedure to meet the specific needs of each patient. Many people will notice an improvement in their symptoms immediately after a treatment. To help patients achieve improved health, the chiropractor can also design a program that includes exercise and nutritional counselling.

2. What conditions can chiropractors treat?
Chiropractors treat a wide variety of conditions affecting the muscles and joints in the body. Many of these conditions, commonly treated with pain medications, can also be treated effectively with chiropractic therapy and exercise.

People of all ages and from all walks of life can benefit from chiropractic treatment. Chiropractors also provide valuable information about maintaining optimum health and a healthy spine, and provide tips to help people reduce the risk of work and sport related injuries.

3. What is an adjustment?
Chiropractic adjustments usually involve a quick thrust that helps add motion to spinal joints that aren’t moving right. Some methods use the doctor’s hands, an instrument, a special table or the force of gravity. There are many ways to adjust the spine.
4. What is the popping sound during adjustments?
Lubricating fluids separate the bones of each spinal joint. Some adjusting methods can produce a sound when the gas and fluids in the joint shift. It’s much like opening a bottle of champagne or removing a suction cup. The sound is interesting, but it isn’t a guide to the quality or value of the adjustment.

5. How is chiropractic adjustment performed?
Chiropractic adjustment or manipulation is a manual procedure that utilizes the highly refined skills developed during four intensive years of chiropractic education. The chiropractor typically uses his/her hands to manipulate the joints of the body, particularly the spine, in order to reduce pain, and restore or enhance joint function. Chiropractic manipulation is a highly controlled procedure that rarely causes discomfort. The chiropractor adapts the procedure to meet the specific needs of each patient. Patients often note positive changes in their symptoms immediately following treatment.

6. Is physiotherapy and chiropractic the same?
No. Physiotherapists are focused on treating specific conditions and on rehabilitation exercises for that condition. This is a reductionistic model of health. Although many people seek us out initially for a specific condition, Chiropractors, as mentioned previously, correct subluxations via the adjustment to stimulate the nervous system and innate healing powers of the body to heal itself and function better as a whole. This is a vitalistic and wholistic model of health. One of the great vitalistic and wholistic definitions of health is when all of the cells of our body are working in harmony with each other. The chiropractic adjustment helps the cells in your body work in harmony with each other. Being an expert in spinal adjustments for the above reason is what sets Chiropractic and Physiotherapy apart.

7. Is chiropractic care expensive?
A typical visit at a chiropractic office costs around Rs.1500/-. Studies show you could go to a chiropractor for 2-3 years and it would likely cost less than a day in the hospital. Initial treatment periods may span several weeks but the overall cost of care still remains much less than going to see a medical doctor.

8. What is a subluxation?
In simplest terms, a subluxation is when one or more of the bones of your spine move out of position and create pressure on, or irritate spinal nerves. Spinal nerves are the nerves that come out from between each of the bones in your spine. This pressure or irritation on the nerves then causes those nerves to malfunction and interfere with the signals traveling over those nerves.

9. How does it affect me?
Your nervous system controls and coordinates all the functions of your body. If you interfere with the signals travelling over nerves, parts of your body will not get the proper nerve messages and will not be able to function at 100% of their innate abilities. In other words, some part of your body will not be working properly.

10. How do you correct them?
This is done through a series of chiropractic adjustments specifically designed to correct the vertebral subluxations in your spine. Chiropractors are the only professionals who undergo years of training to be the experts at correcting subluxations.

11. Is chiropractic care safe?
Chiropractic care is safe and effective. Scientific evidence providing that chiropractic care works is overwhelming. Over the past 20 years, many independent research studies have shown again and again that chiropractic care is safe and effective for treating low back, neck and joint pain, headaches, and decreased range of motions.

12. Do I take any medication for my pain?
No. Chiropractic doctors don’t dispense drugs. Because we rely on natural methods, we can show you how to use ice to control painful symptoms. When properly applied, ice can have an analgesic effect without the side effects of pain medications.

13. How long until I feel better?
Every patient recovers at their own pace. Factors which can affect the healing process include your age, your overall health condition, your fitness levels, muscle tone, diet, your lifestyle, stress factors and even your attitude. Other factors include physical, chemical and mental stresses you have now and have had in the past.

14. When will I get my first treatment?
If yours is a chiropractic case, and we accept you as a patient, your first treatment will take place after we review your evaluation.

15. What to expect on your first visit?
Your chiropractor may be treating your back, muscle or joint pain, but he or she needs to understand how your body functions as a whole. In particular he or she will focus on your spine, joints, muscles, and nervous system. Your chiropractor needs a complete picture of your health history and overall current health in order to provide the best possible treatment for you.

16. Is chiropractic treatment ongoing?
No. How long you decide to benefit from care is completely up to you. Starting chiropractic care does not necessitate further care. Most people decide to get wellness and preventative care so that they may continue to enjoy the health improvements they have experienced.

Source: IACD Website (http://www.indiachiropractic.com/FAQ.php)
Category I (A) outlines the subjects taught in a typical semester-based chiropractic program, by year and number of hours:

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<th>DIVISION</th>
<th>FIRST YEAR (HOURS)</th>
<th>SECOND YEAR (HOURS)</th>
<th>THIRD YEAR (HOURS)</th>
<th>FOURTH YEAR (HOURS)</th>
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<td>Community Health (40)</td>
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| Clinical Sciences | Intro. Diagnosis (85)                      | Intra. Bone Pathology (48)                   | Normal Roentgen, Variants & Roentgenometrics (40) |
|                   | Orthopaedics & Rheumatology (90)          | Diagnosis & Symptomatology (120)             | Differential Diagnosis (30)                   |
|                   | Neuro. Diagnosis (40)                      | Diagnosis & Symptomatology (120)             | Radiological Technology (40)                  |
|                   | Arthritis & Trauma (48)                    | Medical Care (50)                            |                                             |
|                   | Community Psychology (46)                  | Emergency Care (50)                          |                                             |
|                   | Child Care (20)                            | Female Care (30)                             |                                             |
|                   | Geriatrics (20)                            | Abdomen, Chest & Special Radiographic Procedures (40) |
|                   | Abdomen, Chest & Special Radiographic Procedures (40) |

| Chiropractic Sciences | Chiropractic Principles I (56)             | Chiropractic Principles II (60)              | Chiropractic Principles III (42)             | Integrated Chiropractic Practice (90)       |
|                      | Basic Body Mechanics (96)                  | Chiropractic Skills II (145)                 | Clinical Biomechanics (100)                   |
|                      | Chiropractic Skills I (100)                | Spinal Mechanics (40)                        | Chiropractic Skills III (145)                |
|                      | Chiropractic Principles I (56)             | Chiropractic Principles II (60)              | Auxiliary Chiropractic Therapy (60)          |
|                      | Basic Body Mechanics (96)                  | Chiropractic Skills II (145)                 | Introduction to Jurisprudence & Practice Development (16) |
|                      | Chiropractic Skills I (100)                | Spinal Mechanics (40)                        |                                             |
|                      | Chiropractic Principles III (42)           | Chiropractic Skills III (145)                |                                             |                                             |
|                      | Clinical Biomechanics (100)                | Auxiliary Chiropractic Therapy (60)          |                                             |                                             |
|                      | Chiropractic Skills III (145)              | Introduction to Jurisprudence & Practice Development (16) |
|                      | Auxiliary Chiropractic Therapy (60)        |                                             |                                             |                                             |
|                      | Introduction to Jurisprudence & Practice Development (16) |
## Chiropractic Sciences
- Chiropractic Principles I (56)
- Chiropractic Principles II (60)
- Basic Body Mechanics (96)
- Chiropractic Skills I (100)
- Spinal Mechanics (40)
- Chiropractic Principles III (42)
- Clinical Body Mechanics (100)
- Chiropractic Skills III (145)
- Auxiliary Chiropractic Therapy (60)
- Introduction to Jurisprudence & Practice Development (16)
- Integrated Chiropractic Practice (90)
- Jurisprudence & Practical Development (50)

## Clinical Practicum
- Observation I (30)
- Observation II (70)
- Observation III (400)
- Internship (750)
- Clerkships: Auxiliary Therapy (30);
- Clinical Lab (20)
- Clinical X-ray Technology (70);
- Interpretation (70)
- Observer IV (30)

## Research
- Applied Research & Biometrics (32)

## Totals
- Biological Sciences: 4465 hours
- Clinical Sciences: 4465 hours
- Chiropractic Sciences: 4465 hours
- Clinical Practicum: 4465 hours

**Total Hours Full-time study over four years:** 1382

### A sample full (conversion) programme

(b): Category I (B) essentially, conversion programmes are dependent upon assessment of the medical training of the student cohort. They are then designed so as to complete satisfactorily all requirements of a full chiropractic programme.

### DIVISION | FIRST YEAR (HOURS) | SECOND YEAR (HOURS) | THIRD YEAR (HOURS)
---|---|---|---
**Biological Sciences** | Spinal Anatomy (45)
Laboratory Diagnosis (30)
Pathology (60)
Physiology (45) | Pathology (120) | Clinical Nutrition (45)

**Clinical Sciences** | Radiology (90)
Neuromusculoskeletal Diagnosis (30) | Neurology (45)
Physical Diagnosis (30)
Neuromusculoskeletal Diagnosis (30) | Paediatrics (45)
Geriatrics (30)

**Chiropractic Sciences** | Chiropractic History (30)
Principles & Philosophy of Chiropractic (20)
Spinal Biomechanics (60)
Static & Dynamic Spinal Palpation (30)
Chiropractic Skills (180) | Principles & Philosophy of Chiropractic (20)
Static & Dynamic Spinal Palpation (60)
Chiropractic Skills (120) | Principles & Philosophy of Chiropractic (20)
Chiropractic Skills (60)

**A sample limited (conversion) programme**

(c): Category II (A) Suitable for persons with a solid medical education to attain minimal registerable requirements to practice safely and relatively effectively as chiropractors.

### DIVISION | FIRST YEAR (HOURS) | SECOND YEAR (HOURS) | THIRD YEAR (HOURS)
---|---|---|---
**Biological Sciences** | Spinal Anatomy (45)
Pathology (60)
Physiology (45) | Pathology (45)
Neuromusculoskeletal Diagnosis (30) | Clinical Nutrition (30)

**Clinical Sciences** | Diagnostic Imaging (45)
Neurology (45)
Physical Diagnosis (30)
Neuromusculoskeletal Diagnosis (30) | Principles & Philosophy of Chiropractic (20)
Static & Dynamic Spinal Palpation (60)
Chiropractic Skills (90) | Paediatrics (45)
Geriatrics (30)

**Chiropractic Sciences** | Chiropractic History (30)
Principles & Philosophy of Chiropractic (20)
Spinal Biomechanics (60)
Static & Dynamic Spinal Palpation (30)
Chiropractic Skills (90) | Principles & Philosophy of Chiropractic (20)
Chiropractic Skills (60)

**Clinical Practicum** | Supervised Clinical Practicum (100) | Supervised Clinical Practicum (220) | Supervised Clinical Practicum (420)

**TOTAL** | 600 | 600 | 605

**TOTAL HOURS Part-time study over three years:** 1805

Source: WHO
A sample limited (standardization) programme

(d): Category II (B) Addresses deficiencies identified through assessment of a student’s existing knowledge and skills and enables graduates to attain safe and minimal refisterable standards as chiropractors.

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Source: WHO


22. The position of chiropractors in affordable healthcare: Can chiropractic avoid the side effects and reduce the healthcare cost associated with narcotic analgesics? https://goo.gl/UKdVJT, 2014


