AN INITIAL CASE-MIX REPORT OF CHIROPRACTIC PRACTICE IN THE PHILIPPINES

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Abstract: This paper is a short, descriptive report of conventional chiropractic practice in the Philippines. The first data reported represent a Case-Mix report where the presenting problem of 100 consecutive patients are reported along with basic demographics. The second data are extracted from a representative sample of 695 patients from which a smaller sample of n=47 was extracted and reported. The Case-Mix data are from three distinctly different clinical settings (metro Manila, Mindanao Island, and Cavite) and the larger sample is drawn from a larger number of clinics through the country. The analysis shows approximation to known case-mix data from other countries and practice settings. As with all early reports the data raise more questions than they answer, however the prime intent is to inform the development os a university-based educational program in the Philippines. A baseline is now set for further reports of chiropractic practice throughout the Philippines.

Indexing Terms: Chiropractic, Philippines, Case-Mix, conventional chiropractic.

Introduction

This paper presents the first report of the case-mix of conventional subluxation-inclusive chiropractic in the Philippines. The commencement of the discipline in the Philippines is traced to Dr Jamison Uy who established a permanent practice in Manila in 1986. Today there are about 50 certified chiropractors in some 40 chiropractic clinics across the nation, from Makati to Cebu). All clinics report high utilisation of chiropractic care and this is the first nation-wide report of the chiropractic patient case-mix in the Philippines.

'... this is the first descriptive report of chiropractic practice in the Philippines. It shows the case-mix is similar to that reported for other locations.'

Quick Tap or Scan:

Regulation

The profession of chiropractic is regulated in the Philippines by the *Philippine Institute of Traditional and Alternative Health Care* (PITAHC), (1) an attached agency of the *Department of Health*. As an autonomous agency of the national government PITAHC is charged with the integration of Traditional and Alternative health care practices into the universal health care practices of the Philippines. The Board of Trustees are high-level appointees representing Health Research and Development, Education, TAHC Practitioners, Medicine, the Environment and Resources, and similar Departments. One of the chiropractors on the PITAHC Board of Governors is classified as a physician.

Through its principal the Director-General (DG), Dr Annabelle Padilla-De Guzman, PITAHC's progressive Board of Trustees has led the introduction of government regulation of chiropractic

practice with the intent to also regulate chiropractic training. Experienced chiropractic educators will appreciate the strengths of this situation lie in the regulating agency for practice also regulating education and supporting research. While this approach would ensure consistency across all domains of chiropractic a negative would be education sitting outside the Commission on Higher Education (CHED) (2) At the time of writing this matter is yet to be resolved one way or the other.

PITAHC states it is '*committed to protect and safeguard the interest of the general public from being taken advantage of by unscrupulous people using traditional and alternative medicine for financial gain*', (1) with the purpose to ensure a broad scope of practice nation-wide while achieving optimal public safety. The effect of such a wide-ranging agency is a consolidation of responsibility for the discipline of chiropractic, in contrast to the situation in some other countries where programmatic and institutional accreditation is outsourced to a third party. (3, 4, 5, 6) To ensure patient safety is protected and the quality of care is common across the discipline PITAHC also regulates chiropractic clinics and proposes a period of in-country chiropractic training with an approved, certified chiropractor before an applicant, who must either be Filipino or hold dual citizenship, is considered for registration.

About Case-Mix Studies

Case-mix studies are the first approach to understanding the nature of chiropractic practice in a particular environment and are specifically useful for identifying the variety of clinical presentations. First-level case-mix studies such as this report the broad range of clinical conditions for which patients seek care. At this point it is not known in the evidential sense whether chiropractors in the Philippines manage patients with low-back pain or headache, for example. Neither anecdotal evidence nor assumptions drawn from chiropractic practice in other countries constitute sufficient evidence to inform the profession's development in the Philippines.

Case-mix studies report essential foundational knowledge for informing further studies perhaps of the characteristics of a particular demographic with a particular clinical condition. In this manner they differ to demographic studies which report socio-economic information and express it statistically. (7) They also differ to descriptive studies, of which there are several for North America (8, 9, 10) and Europe (11, 12, 13) in that they represent exploratory research with a focus on clinical conditions and are readily undertaken by clinicians.

Case-mix studies also have value in informing public health decisions in developing countries by reporting a related group of patients; an example being a group of patients with tuberculosis. (14) In this report the cohort is '*a member of the Philippine public self-selecting chiropractic care.*' Although common to medicine, case-mix studies are infrequently reported in the chiropractic literature with the exception of the case-mix in teaching clinics, the only regional report of which is of an Australian institution by Walsh in 1992. (15) Subsequent reports have been published for teaching clinics (16) in North America (17) and its West Coast region, (18) New Zealand, (19) Mexico (20) and Britain. (21) While not including statistical analysis they typically report a case-mix thought to be representative of private practice in each country. (22)

This paper also indicates future approaches for scholarly inquiry in the Philippines, especially as full chiropractic care is extended to squatter communities. (23) Vindigni's work in 2011 (23) found the distribution of pain presentations among the 166 presentations in Bagong Barri as 36.7% upper back, 18.7% lower back, and 16.3%shoulders, providing a context for the results reported in this paper. Statistically significant decreases of pain were reported by Vindigni et al following care.

Methods

This study reports prospective documentation of chiropractic care provided by one Certified Chiropractor in three chiropractic clinics distributed throughout the Philippines across a three one periods of a day or two over 2 weeks in mid-2019, with a post-hoc analysis from a larger number of clinics and clinicians.

The 1993 Case-Mix studies (24, 25) of Ebrall formed the seed template for data collection. A purposive convenience sample of three clinics was selected in diverse communities of which one was metropolitan Manila. All data for the case-mix report were recorded by the same practitioner to ensure consistent clinical decision-making and categorisation of the presentation. This information will inform the development of specific categories for subsequent studies.

Results

A total of 100 consecutive patient-visits were documented with each individual being recorded only once. There was no attempt to manage patient flow and the data represent a sequential run of cases in three parts documented as each patient presented for one scheduled session of care at one of three collection sites. The clinics were located in Cagayan De Oro, Mindanao Island; Metro manila, in an affluent district; and Maila in the Province of Cavite. The same practitioner recorded all details to ensure consistency with case classification.

Of the 100 consecutive visits 54% were by females and 46% by males. The mean age of females patients was 39.5y and of male patients, 39.7y. The all-patient age range was 8y to 72y.

Case-Mix analysis

A total of 112 'primary complaints' were recorded from 100 consecutive patients. The most prevalent presentation was low-back pain at 29% of all patients followed by neck pain at 27%. Combing neck pain with headache resulted in n=39 'neck pain and headache' patients, 39% of 100 presentations. Combining low-back pain with mechanical back pain resulted in 35 'back pain' patients, 35% of all. A further category of 'full-spine' represented 21% of patients. On the assumption all headache was cervicogenic, a generous assumption at first presentation, all 100 patients presented with one or more musculoskeletal disorders as their primary complaint.

A total of 58 secondary complaints were recorded from the same 100 consecutive patients. It is noted that 'headache' as a secondary complaint grew to represent 25.8% and complaints such as sinus began to appear, albeit it low at 8.6%. These data are represented in Figures 1 and 2.

Figure 1: Distribution of primary presenting complaint (n of sequential patient *reports* total n= 112 from 100 patients)

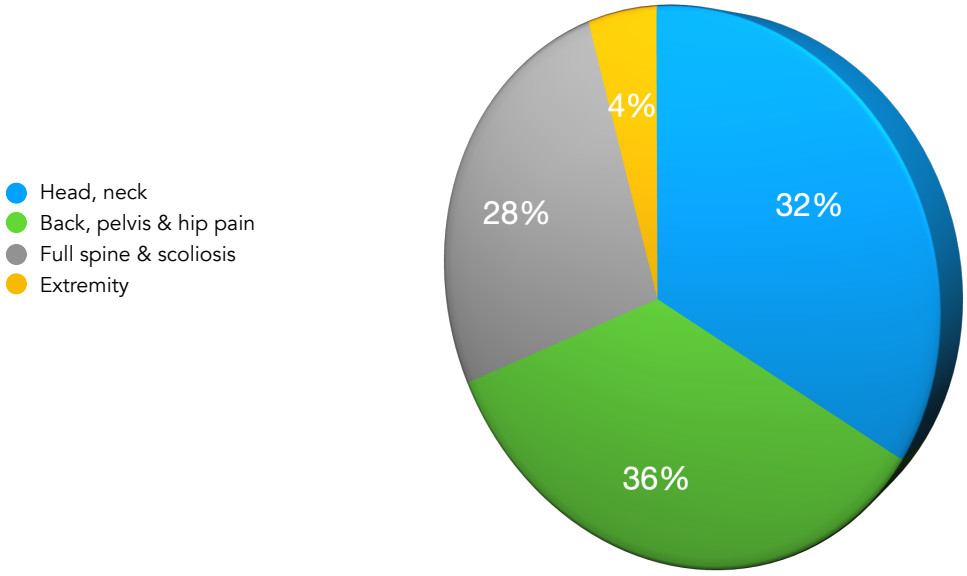
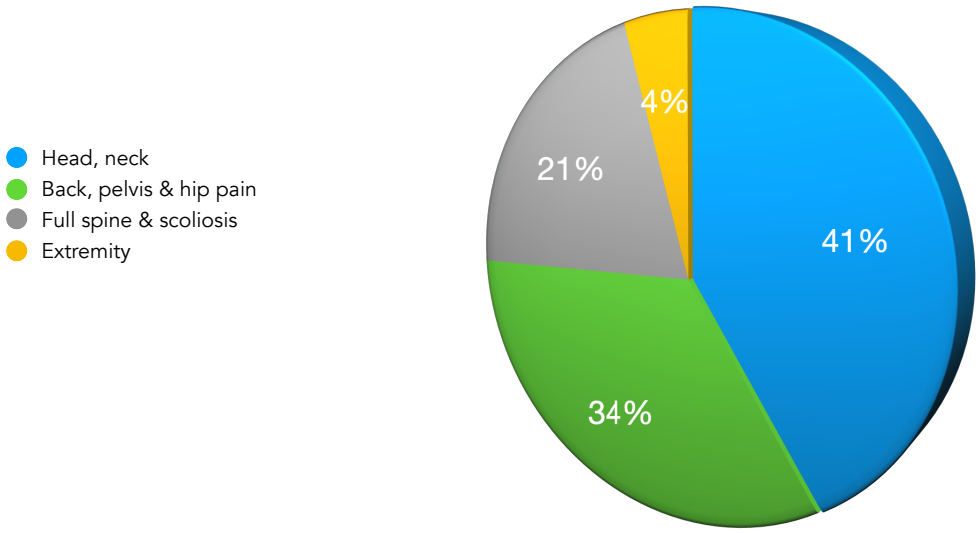


Figure 2: Distribution of primary and secondary complaints collapsed to major regions (% of sequential Case-Mix sample n= 100)



Post-hoc analysis

The contemporaneous nature of collecting the data from presenting patients did not allow for further analysis, an appropriate method for a case-mix report of this nature. A post-hoc analysis of a sample of 695 visits by patients 'new to chiropractic' across all clinics in this group during 2019 showed that one third (33.4%) took their decision to consult a chiropractic from a Google search. This is not an unexpected finding in the Philippines.

This is about the same percentage of patients (at 32.7) who returned for further care after a period of treatment. Progress exams were conducted on 47 patients, as n = 21 male (45%) and n = 26 female (55%). Of all conditions reported by these patients. 73.7% were clearly musculoskeletal, as 17.5% neck pain, soreness and stiffness, 17.5% lower back problems, 20% general back pain, and 18.76% hip and pelvic problems. The remaining 26.3% of complaints covered a variety of presenting complaints suck as leg, knee, ankle, foot and posture. The greater majority (61.7%) of patients reported that chiropractic care significantly helped them. An additional 19% reported their problem has been completely resolved by chiropractic care, and a further 19% reported some improvement. In summation this is an overwhelmingly positive response to care, with only 1 patient (2%) reporting that chiropractic made no change to their health status.

On-line positioning of the profession seems important and effective as less than 2% (1.9%) of the 695 patients were referred by another health professional. Interestingly, double this number (n = 29, 4.2%) were referred from other chiropractors. Marketing with vouchers and other promotional aids resulted in 1 patient (0.14%). The peak months for 'new patients' were May and July, then February.

Of great interest to advocates of pubic health, 64% reported their general movement had improved, 59.5% their sitting, 40% their sleeping, and18.8% their walking; these data alone point to a significant contribution to the quality of life-years at community level associated with chiropractic management.

The findings from a random sample (n=47) of patients undergoing a Progress Report are represented in Figures 3 and 4.

Figure 3: Infographic - distribution of main complaints (post-hoc sample n= 47)

Lower back 'problems'
17.5%

Hip and pelvic 'problems'
18.8%

General back pain
20%

Neck pain, headache
46%

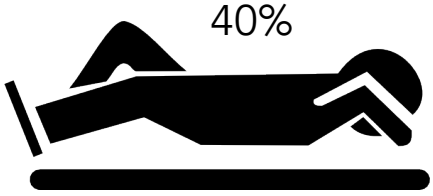
Figure 4: Infographic - Improvements reported by patients (% of post-hoc sample n= 47)

Sitting
59.5%

General movement
64%

Walking
18.8%

Sleeping
40%



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Discussion

The purpose of a case-mix study is to take a snap shot of practice within a short time period, in this case two weeks from three locations, when it can be reasonably expected that all things remain equal across the sites of data collection. This negates fluctuations in weather, important in the Philippines where heavy storms are common. Also, political fluctuations are relatively controlled and there was no electioneering in the region of each clinic at the time of data collection. Other seasonal variations are also controlled across all sites.

On the other hand the post-hoc data were randomly drawn from a much larger patient sample (n=695) and filtered to 47 individual patients with Progress Reports. There were numerous reasons for this with the intent being to relatively standardise the reporting across multiple clinics and multiple clinicians. The data resulted from a deeper audit of patient flow and even though the sample extracted is small (n=47) it can be considered more or less indicative of 'typical' chiropractic practice across a nation of 109.3 million people (26) where chiropractic practice is not yet 35 years old.

Figure 2 is of interest as it shows that Head and Neck complaints represent about 41% and 'back pain' about 34% of presentations. These values approximate known values from many other studies and are notoriously difficult to compare with any meaning given the variation with how researchers theoretically categorise signs and symptoms compared to the various ways in which individual clinicians may categorise them. A useful project could be the development and validation of a standardised tool for global use.

Figure 3, taken from the post-hoc sample, shows 46% attend complaining of neck pain and/or headache. Again these data represent indistinct categories and the take-away message is that neck pain and headache accounts for over 40% of patient presentations. Similarly Figure 3 shows a total of about 36% presenting with 'lower back problems' and 'hip and pelvis problems', similar to the case-mix sample percentage of 34%.

Confounders are, of course, categories of 'full spine', 'mid-back pain' and 'scoliosis', all of which make it difficult to report with greater accuracy. However the pragmatist will suggest that statistical accuracy has little meaning in clinical practice; the more important indicators are the general trends, in which case the main reason for about 40-45% of patient presentations is upper body complaints (neck pain, shoulder pain, headache and so on), and then about 30-35% with lower body complaints (low back, hip, pelvis), and then a smattering of assorted concerns such as complaints about an extremity, typically joint pain.

Of greater interest from a public health perspective is Figure 4 which shows strong benefits following a prescribed plan of chiropractic care. It must be noted these data are taken from real-world clinical records and have not been gathered by a validated form of categories. Nevertheless, it is noteworthy that key activities of daily living (ADL) such as 'general movement' and 'comfort with seating' show strong effect in about 60% of patients.

The practice style of the clinics

The practice style of the clinics which contributed data is considered conventional, that is, subluxation-based as opposed to concessional where care may be multi-modal and including of physical therapies and other putative therapeutic interventions.

A conventional subluxation-based chiropractic practice typically prescribes a course of care based on known responses by other patients with similar presentations. On the other hand the extreme of concessional chiropractic only provides care that is based on published evidence, usually relating to back pain and neck pain where the intervention is generic spinal manipulation instead of segment-specific adjustment.

Concessional chiropractors are starting to appreciate that patients demand individualised or patient-centred care and to this end reports are now appearing to validate standard approaches in conventional chiropractic such as maintenance care. (27)

Conclusion

This paper is the first known report of chiropractic practice in the Philippines. It is a descriptive paper reporting pragmatic clinical data and categorising them as broadly similar to those reported elsewhere. Therefore the paper tells us that known patient presentations in chiropractic practice in the Philippines closely approximates the patient presentations reported from other countries and environments noted earlier.

This paper allows the statements '*chiropractors in the Philippines largely manage patients presenting with neck pain with or without shoulder pain and headache, and low-back pain with our without hip and pelvic pain*,' and also '*activities of daily living such as general movement, sitting, sleep and walking*' show considerable improvement. The beneficial outcomes as reported by these patients deserves further exploration looking for matters such as dose-response relationships.

It is considered important to understand whether the outcomes reported in this study are similar to other chiropractic styles in the Philippines and then to examine matters such as cost:benefit ratios, patient health outcomes, and community health benefits. This knowledge is critical to the development of an appropriate education curriculum for chiropractic in the Philippines.

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