



The Design of a Practice-based Study of Attendees at Chiropractic Offices in Western Australia

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Authors' contributions

This project is a master of public health dissertation by author LGAW. Authors LN, GFPS and CF are co-supervisors of the student. All authors read and approved the final manuscript.

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Study Protocol

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ABSTRACT

Introduction: This paper presents the protocols for a pilot study that will provide a design critique and collect information to describe the patients who attend chiropractors in Western Australia.

Aims and Objectives:

1. Provide a critique of the research design and methodology, including enrolment and recruitment, data collection, and sample size calculations.
2. Describe the patient demographics, reason for consultation and baseline health status of patients that present to chiropractic practices in Western Australia.

Methods/Research Design: This will be a prospective, cross-sectional, practice-based pilot study

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of patients seeking chiropractic services in Western Australia. A minimum of seven (7) independent private chiropractic practices across urban, regional, rural and remote settings will be recruited. Consecutive adult patients that self-present to these practices for the first time will be invited to participate. Data for analysis will be collected in participating clinics using a computer-based online questionnaire. Data collected will include; patient demographics; age, gender, primary language, occupation, payment source, presenting complaint, prior treatment, pre-existing health conditions, medications, attendance at other health practitioners, lifestyle choices, previous use of chiropractic and human quality of life measures (HQoL's; SF-12 and PIQ-R). Prior sample size estimation indicates a total sample of 320 would be sufficient to achieve a study power of >80% (assumed effect size 0.2, $\alpha=0.05$, assumed $df=5$).

Conclusion: Innovative electronic and internet portals for gathering practice-based data are to be assessed. Information describing patients who attend allied and complementary practitioners is critical to facilitate appropriate and effective health system planning and administration in Western Australia.

Keywords: Allied health occupations; chiropractic; cross-sectional studies; complementary therapies; pilot projects.

ABBREVIATIONS

AHPRA : Australian Health Practitioner Regulation Agency
ASGC-RA : Australian Standard Geographical Classification - Remoteness Area
ABS : Australian Bureau of Statistics
BEACH : Bettering the Evaluation and Care of Health
CAAWA : Chiropractors Association of Australia (Western Australian Branch)
COAST : Chiropractic Observation and Analysis Study
CBA : Chiropractic Board of Australia
HQoL : Human Quality of Life measure
SF-12TM : Short Form 12
PIQ-6(R)TM : Pain Impact Questionnaire-6 (Revised version)

1. INTRODUCTION

1.1 Background

Chiropractic research in Australia remains under-developed. In Western Australia, there is a lack of data that describe patients who consult chiropractors. Meanwhile, local models of care for musculoskeletal healthcare provision are now focused on shifting services from tertiary (hospital) to primary (community-based) settings, and improving access to multidisciplinary care, potentially including chiropractic [1-3]. This shift is aimed at improving outcomes for patients and reducing healthcare costs, yet despite this, there is limited understanding of the patient population who attend allied and complementary practitioners such as chiropractors, or why they choose to consult that particular type of practitioner. These data are fundamental to designing health systems and facilitating interactions between educators, professional representative bodies and various stakeholders including private insurers, WorkCover WA, the Insurance Commission of WA and the state government Health Department of WA.

Of the 4,420 chiropractors registered in Australia as of June 2014, 539 are registered in WA, however no precise data are currently available for the proportion practising in metropolitan, regional, rural and remote regions of the state [4]. Analysis of professional membership lists however suggests statewide distribution of chiropractors approximately reflects that of population demographics. In June 2013, the population of the Perth metropolitan area was 1.97 million people, which was 78% of the state's total population [5].

Australian Bureau of Statistics (ABS) data, indicate that physiotherapists and chiropractors combined provide approximately 12 million consultations in Australia annually [6]. In the allied health sector, these two professions alone account for around \$2.2 billion in annual Australian health care expenditure [7, 8]. Existing sources estimate that around 16% of people visit chiropractors annually with the vast majority of these consultations being for spinal-related musculoskeletal conditions [2,9]. Chiropractors are the second-most utilised practitioners

(19.1%) after medical practitioners (22.4%) for back pain in Australia [10,11].

The 2010 Global Burden of Disease study reported that musculoskeletal disorders ranked worldwide as the second leading cause of disability [12]. The extent of this problem also leads to considerable socioeconomic burden in both direct medical costs and indirect costs to the Australian economy. Patients with back pain spend about 75% more annually on health care than people without back pain even without including costs for lost work time or diminished productivity [13]. Indeed, productivity loss and directly related health care expenditure have continued to escalate along with the prevalence of spinal pain [14].

Studies carried out in other jurisdictions have suggested that spinal pain or dysfunction is the main reason people consult chiropractors [9]. It is thus salient to briefly review relevant aspects of its epidemiology and significance.

Spinal dysfunction must be excluded as a 'masquerade' for organic conditions [15], since clinical 'red flags' or sinister causes may be implicated in less than 5% of cases of spinal pain [2,16-18]. Approximately 80% of people will experience back pain, with 70% of the world's population experiencing at least one disabling episode of low back pain in their life-time [15,19,20]. Whilst 50% of people experiencing low back pain will recover within 2 weeks and 75% within 1 month, recurrence is frequent [15, 21]. Around 25%-30% of Australians who experience low back pain continue to have persistent or recurrent episodes [21, 22]. Only 19% of people in the general population in a recent Scandinavian study reported a single day without low back pain in a one year period [23]. Further, prognosis may not be as favourable as claimed in older clinical guidelines [21], especially where there is equal pain in the neck and low back on initial presentation, which is predictive of a much poorer prognosis [24].

Chronic spinal pain is strongly associated with psychosocial risk factors [yellow flags] and even possibly central nervous system change [25-28]. Spinal disorders are consistently within the top ten of the most expensive health care presentations, thus health system administrators clearly have a powerful incentive to ensure management that demonstrates positive treatment outcomes, cost efficiency and is patient-centred [29-32].

Many musculoskeletal disorders, such as spinal pain, are complex and often require multi-disciplinary care strategies. Thus, attention needs to be directed to effective, evidence-based management [33]. Emerging and existing research evidence supports holistic, biopsychosocial management of acute, non-malignant spinal pain [34,35]. Early referral and assessment can potentially contribute to cost savings by avoiding unnecessary imaging, investigations, hospitalisations, invasive medical procedures and surgery [36]. Of particular concern is that currently, fewer than 10% of Australians with low back pain access evidence-informed management [37].

Internationally, systematic approaches to gathering information about chiropractic practice have been limited by various factors including study design. Previous attempts to document chiropractic practice in Australia were outdated until recently when French et al (2013) conducted a cross-sectional study (Chiropractic Observation and Analysis Study -COAST), using the BEACH (Bettering the Evaluation and Care of Health) methods for general practice where 52 chiropractors completed the study [9]. COAST documented the following: demographic characteristics of chiropractors; characteristics (demographic and health profile) of the people who sought chiropractic care; the reasons people sought chiropractic care (reasons for encounter); the problems and diagnoses chiropractors identified; and the care chiropractors provided. The authors noted a limitation due to the low response rate to the survey, which they hypothesised, was related to the paper-based nature of clinical records and the location of the data capture. Thus the authors concluded that data should ideally be routinely collected in chiropractic practices. The proposed study is thus partly designed to investigate whether an electronic data capture format located in chiropractic practices may mitigate the response and missing data limitations experienced by past works. Whilst French et al did stratify practitioners between urban and rural, this present work will further stratify according to deeper levels of the Australian Standard Geographical Classification - Remoteness Area (ASGC) categories [38].

1.2 Aims

1. Provide qualitative and quantitative assessment of the research design including chiropractic practice and patient

enrolment and recruitment methods; data collection; and sample size calculations.

2. Describe the demographics, reason for consultation, and baseline health status of patients who present to chiropractic practices in Western Australia.

2. METHODOLOGY

2.1 Project Plan

2.1.1 Research Design

This is a prospective, cross-sectional, multi-centre descriptive study using a representative sample of new patients seeking chiropractic services in Western Australia. As stated, this pilot study is designed to provide the basis for subsequent studies which will measure characteristics and outcomes of patients attending a range of pain management practitioners.

2.1.2 Practice recruitment

A representative sample of chiropractic practices across Western Australia will be identified, from which consecutive adult patients attending these clinics will be invited to participate in the study. A minimum of seven (7) independent private chiropractic practices across urban, regional, rural and remote settings (RA1-IM,OM, RA2, RA3-5 as per Australian Standard Geographical Classification - Remoteness Area ASGC-RA) will be recruited [38]. Practice recruitment will occur via email to registered chiropractors in WA in active practice, based on email lists collated from the public domain and through the Chiropractors Association of Australia (WA Branch) (CAAWA approval has been granted). The aim is to recruit a minimum of seven practices spread across inner and outer metropolitan (n=4), regional, rural (n=2) and remote (n=1) regions.

The inclusion criteria for *practice recruitment* will be:

1. The chiropractor is registered with the Australian Health Practitioners Regulation Agency (AHPRA)/Chiropractic Board of Australia(CBA) and;
2. The practice is able to provide internet access to the patient participants to allow the survey to be completed in appropriate privacy (e.g. tablet, laptop or desktop computer supplied by the practice). Provision of internet access is not

predicted to be a difficult criterion to meet, even for regional rural and remote practices.

While the *minimum* goal is to recruit seven (7) practices as described, it is desirable that the recruited practices reflect state population demographics i.e. ~80% metropolitan and ~20% outside greater Perth and thus more than seven practices may be recruited.

2.1.3 Orientation procedure

An orientation session for practitioners will be conducted to explain the study protocols. Where practical, practitioners and office support staff will be invited to physically attend an orientation session. These sessions will be conducted by the investigator, if necessary in several locations, or in the individual practices. However, if this is not feasible, the protocols will be explained by telephone or online. A cooling off period of two weeks following this session will be in place. Practices may withdraw from the study at any time, however data collected up to that point will be included in the analyses.

2.1.4 Patient Recruitment

Consecutive adult patients (>18yrs) who self-present to the participating practices for the first time will be provided with information and invited to participate. Patients who agree to participate in the study will provide consent (electronically online) when directed to the study questionnaires by the clinic support staff, prior to being seen by the consulting chiropractor. There is no patient screening for entry into the study since the study sets out to record the characteristics of all those patients that present to the chiropractic practices during the recruitment period.

The participating chiropractors will be blinded to the patient's participation status, thus reducing the potential for perceptions of practitioner coercion or bias.

2.1.5 Consent

All participants - patients, practitioners and support staff - will provide consent for involvement in the study either by electronic (patients) or written means (practitioners and support staff).

2.1.6 Data Collection

Data for analysis will be collected in participating clinics using a computer accessed online questionnaire, which patients will complete at the clinic. This questionnaire has been developed by the investigator, closely reflecting that used in COAST [9]. Data collected will include; patient demographics; age, gender, primary language, occupation, payment source, presenting complaint; prior treatment, pre-existing health conditions, medications, attendance at other health practitioners, lifestyle choices, previous use of chiropractic (Appendix 2.1) and human quality of life measures (HQoL) – the SF-12 and Pain Impact-R Questionnaires (Appendices 2.2 and 2.3) [License Number: QM023627]. Each participating practice will receive a secure link to allow access to the data survey and the patient provided with this link by support staff to enable them to log in to the online portal and complete the survey. While the patient will be provided with a link, this will not be connected to their participation data except to give them entry to the portal. The researcher, who will be blinded to the data collection, will collate the data for analysis.

2.2 Human Quality of Life Measure (HQoL)

Human Quality of Life measures will be administered along with the demographic data collection survey. Clinicians, (and by extrapolation this study) require instruments that are brief, easy to administer and score, and capable of validly identifying psychosocial factors [39-41]. This information potentially enables clinicians to identify patients at risk of developing persistent pain and subsequently use targeted interventions that address psychosocial factors [42-44].

The administration of baseline and outcome measures have been reported extensively and after due consideration the SF-12/Pain Impact Questionnaire-R has been selected for this work. The SF Health Surveys are the most commonly used generic measure of HQoL and have been used in studies of diverse medical and psychiatric disorders and in numerous clinical trials. The *Core outcome measures for chronic pain clinical trials: IMMPACT* recommend the SF as a generic measure of physical functioning because of the large amount of data available that permit comparisons among different disorders and treatments [45].

The SF-36, as one of the most widely used and reliable [46] health-related quality of life survey instruments, measures eight health dimensions- physical functioning, bodily pain, role limitations due to physical health problems, role limitations due to personal or emotional problems, emotional well-being, social functioning, energy/fatigue, and general health perceptions [47-49]. It also includes a single item that provides an indication of perceived change in health. Since the SF-12 items predict at least 90% of the variance in both the physical and mental summary scales of the SF-36, whether scored with Australian or United States normative data, it, along with the PIQ-R was chosen for this study [50].

The Pain Impact Questionnaire (PIQ-R™) is a six-item measure of pain severity and its impact on health-related quality of life. The PIQ-6™ has been established as a precise, valid and reliable instrument with broad application [51]. The PIQ-R™ is a revision of the original PIQ-6™ with enhancements. As a general pain impact measurement tool, the PIQ-R™ can be used to assess a broad spectrum of pain disorders in a variety of applications such as clinical practice, population health assessments, overall disease management and clinical trials. The PIQ™ has proved to be equivalent across cultures, and is useful, reliable, and valid for use outside the USA [52].

2.3 Sampling

All consecutive adult (18 years and over) patients self-presenting for the first time to each of the chiropractic practices over the 3-month recruitment period will be approached to participate in the study. Support staff will ask every new patient who attends to participate, to minimize selection bias. Only patients who present for their first appointment at that particular practice will be invited to participate, including patients who have previously received chiropractic treatment elsewhere (data will be kept on the number of patients who fit this category). A paper-based participant sheet will be used by support staff to record the participant identification number, gender, accept /decline and reason (if given) for declining.

Each chiropractic practice is estimated to average at least 6 new self-presenting adult patients per week. With a potential 20% of patients declining to participate or not completing the survey, it is estimated that approximately 320 patients could be recruited into the study during

the 12 week study period across at least 7 practices. The estimated rate of those declining to participate is based on; (1) the invitation is face to face, (2) low chance of participation fatigue (prior invitation), (3) the issue is salient to the participants and (4) low demands in terms of participation [53]. Since there is no issue of 'finding' participants to recruit, this estimate is considered somewhat conservative. Calculations to determine priori sample size estimation using G*Power software indicates a total sample of 320 would be sufficient to achieve a study power of >80% (assumed effect size 0.2, $\alpha=0.05$, assumed $df=5$; www.gpower.hhu.de).

2.4 Ethical and Privacy Considerations

Approval to conduct this research has been provided by The University of Western Australia, in accordance with its ethics review and approval procedures (approval # RA/4/1/6713). Consecutive numbers will be used as the unique identifier for each individual patient's data. Codes will be generated to categorise practices, however it will not be possible to identify an individual patient from the code. Additionally, because no identifying information such as patient name, date of birth and address will be collected in the survey there will be no potential for re-identification of data. Data collected from study participants will only be analysed and published as aggregated data, and therefore no individual information will be described.

2.5 Data and Design Analysis

2.5.1 Methodological critique

Bearing in mind the objectives of the study, the following analyses are relevant to a comparative, multi-centre, cross-sectional study [54]: define and analyse the population according to the protocols; describe variables by geographical group; provide effect of 'risk factor' (location) on HQoL measure; and conduct stratified analysis.

The online survey tool itself will be tested and critiqued by the practitioner participants prior to being formally launched. This process will be utilised in a continuous manner throughout to monitor the study. To further address study Aim 1, a mixed quantitative - qualitative online critique assessment survey has been developed to assess the methodology undertaken in this study. This practitioner and support staff participant feedback survey will record; (1) demographics including age, gender, years in

practice, and (2) a 4-point Likert scale rating of the following aspects of the project; a) recruitment, b) background information, c) resources and training, d) implementation, e) forms and questionnaires, f) patient compliance, g) impact on clinic operations, h) access to research team, and i) follow up.

The analysis of the results and their implications will take the form of; (1) item-by-item critique of the methods and recommendations (2) summary of results and emphasis on the implications and meaning of the outcomes on the profession (3) comparison to key past studies (4) limitations of the study including sample issues, data collection issues and researcher bias, numbers and reasons for declining, and outcome measures, and (5) recommendations for the design of future projects.

2.5.1.1 Qualitative analysis

The use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone [55], and is appropriate for an external pilot study, thus practitioner and support staff will also be specifically given opportunity to provide a reflective assessment of their experience as a participant. In particular, they will be asked open ended questions with respect to challenges and suggestions for improvements in future projects (Appendix 2.4). The researcher will be continuously immersed in the data and while monitoring progress and participants with respect to unexpected situations and challenges throughout course of the project [56-58]. Coding processes as recommended by authoritative sources will be used [59-61]. Words, phrases, sentences, and passages will be highlighted and then coded into categories to facilitate the grouping of ideas. Comparisons will be used to progress to formal categories which will be then re-examined and refined. The coding process and category formation will be flexible to permit creative and intuitive thinking, to be responsive to the participants' expressed thoughts, and to avoid producing excessive quantities of categories. Categories will then be grouped together to examine and isolate meaningful patterns and processes, confirm associations between categories, and to derive specific themes.

2.5.1.2 Descriptive statistical analysis

Descriptive quantitative analysis of the variables collected will be undertaken using SPSS v21

software to characterise the sample patient population. Continuous variables will be presented as means, and categorical variables as counts and proportions. The patient population will be stratified by clinic location (metropolitan, regional, rural, remote) and differences in characteristics by location analysed using unadjusted linear and logistic regression models for continuous and categorical variables respectively. Regional, rural and remote categories may be aggregated if low patient numbers in groups limit the ability to detect differences between the groups. The patient population will also be stratified by other demographic variables including broad age groups to compare characteristics across different groups. The results for the HQoL measures will be analysed to examine the association between location and HQoL scores. One-way analysis of variance will be used to compare the groups across the SF-12/PIQ-6 dimensions and with societal norms.

3. DISCUSSION

Internationally, systematic approaches to gathering information about chiropractic practice have been limited by various factors including study design [62-70]. Previous attempts to document chiropractic practice in Australia were outdated [71-75] until recently when French et al (2013) conducted a cross-sectional study (COAST), using the BEACH methods for general practice where 52 chiropractors completed the study [9].

In Western Australia, there is at present a lack of data that describe patients who consult chiropractors along with other allied and complementary health professionals. Models of care developed by the WA Health Department for musculoskeletal healthcare provision are now focusing on shifting services from tertiary to primary (community-based) settings, and improving access to multidisciplinary care, a trend which may have implications for the chiropractic sector [1-3, 76]. This shift is aimed at improving outcomes for patients and reducing healthcare costs, yet despite this, there is limited understanding of the patient population who attend allied and complementary practitioners such as chiropractors, or why they choose to consult that particular type of practitioner.

Thus, a new dynamic is unfolding within the healthcare system in Western Australia where allied health professionals who have traditionally

not been thought of as 'mainstream' such as chiropractors, have an opportunity to define a more concrete role. Over the last decade there has begun a paradigm shift within mainstream healthcare acknowledging the importance of multidisciplinary management of musculoskeletal disorders such as spinal pain, thus information describing patients who attend allied health and complementary practitioners is critical to facilitate appropriate and effective health system planning and administration in Western Australia.

The implications of the management of spinal pain are significant for funding and resource allocation, and in particular, the impact of consumer choices of allied and complementary health practitioners means that the results of this study will be of interest at both a state and national level.

The insights gained, while of particular value to the chiropractic sector, may also have implications for related professions specifically, osteopaths and possibly musculoskeletal physiotherapists. In particular the study design, data collection protocols and quality of life tools will be critiqued for applicability in other professional settings. Since the research team is comprised of experienced members of the medical and physiotherapy professions in addition to chiropractic, all of which are significant stakeholder professions in this space, relevant inter-professional recommendations may be forthcoming. The senior professorial oversight of the project also brings a critical anthropological and sociological qualitative perspective. Thus the results, inferences and experience derived from this external pilot study will be utilised to inform and design confirmatory studies that would examine chiropractic practice more closely, and possibly be compared with other professions.

4. CONCLUSION

Innovative electronic and internet portals for gathering practice-based data are to be assessed. This critique will be vital in informing the design of future practice-based research in Australia. Information describing patients who attend allied and complementary practitioners is critical to facilitate appropriate and effective health system planning and administration in Western Australia.

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COMPETING INTERESTS

The corresponding author is a registered chiropractor and serves on the board of directors of the Chiropractors Association of Australia (WA Branch). All authors have declared that no competing interests exist.

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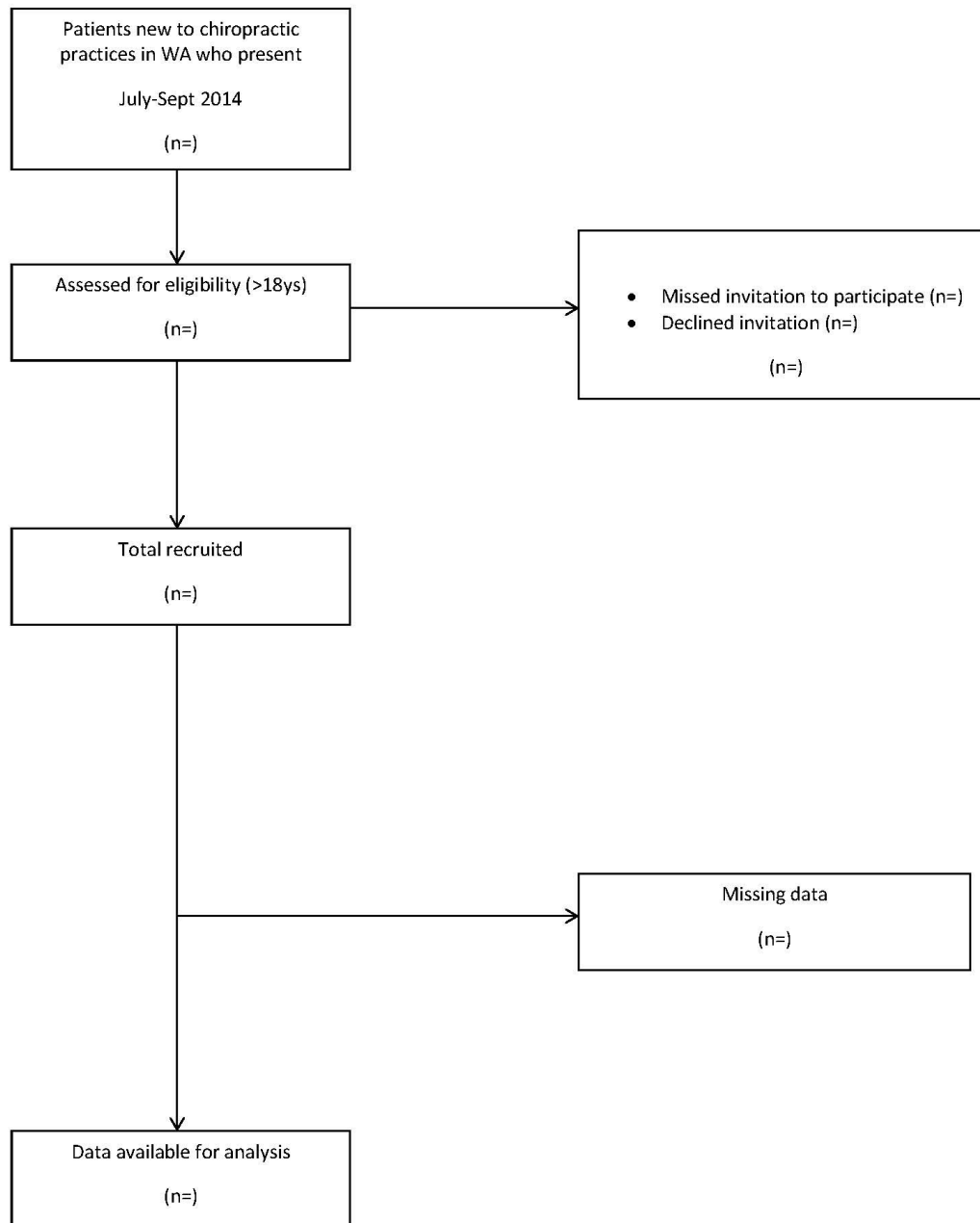
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APPENDICES

1. FLOW CHART OF PROJECT



2. QUESTIONNAIRES

2.1 Patient Demographics, Reason for Presentation and Lifestyle

1. What is your gender?
2. What is your age?
3. What language do you mainly speak at home?
4. Do you identify as an Aboriginal or Torres- Strait Islander person?
5. Which of the following best describes your current occupation?
 - Architecture and Engineering
 - Arts, Design, Entertainment, Sports, and Media
 - Business and Financial Operations
 - Cleaning and Maintenance
 - Community and Social Service
 - Computer and Mathematical
 - Construction
 - Education, Training, and Library
 - Farming, Fishing, and Forestry
 - Food Preparation and Serving Related
 - Other (please specify)
6. Which best describes the source of payment for your visit?
 - Department of Veterans' Affairs (DVA)
 - Insurance Commission (ICWA) or Transport Accident Commission
 - Medicare
 - Patient paid 100% [No insurance]
 - Patient paid partial [Co-payment]
 - Private health insurance
 - No charge
 - Workers Compensation
 - Other (please specify)
7. How did you find out about this clinic?
 - Word of mouth (personal referral)
 - Referral from a medical practitioner
 - Referral from another health practitioner
 - Referral from another source (eg; Lawyer)
 - Friends or family
 - Print advertisement
 - Internet
 - Social Media
 - Signage
 - Other (please specify)
8. Which of the following best describes the MAIN reason you have consulted this chiropractor?
 - Low Back problem
 - Mid Back (between the shoulders) problem
 - Neck problem
 - Muscle problem
 - Health maintenance or preventive care
 - Back syndrome with radiating pain
 - Musculoskeletal symptom or complaint
 - Headache
 - Sprain or strain of joint
 - Shoulder problem
 - Nerve-related problem

General symptom or complaint
Bursitis, tendinitis or synovitis
Kyphosis and scoliosis
Foot or toe symptom or complaint
Ankle problem
Osteoarthritis, other (not spine)
Hip symptom or complaint
Leg or thigh symptom or complaint
Musculoskeletal injury
Depression
Other (please specify)

9. Which of the following are reasons OTHER than the main reason you have consulted this chiropractor? (same options as above)
10. Have you been diagnosed by a medical practitioner (doctor) with any other health conditions before you have consulted this chiropractor?
 - Cardiovascular problem
 - Cancer
 - Diabetes
 - Respiratory problem
 - Neurological disorder
 - Depression or mental illness
 - Other (please specify)
11. Do you smoke?
12. In a typical week how many alcoholic drinks would you consume?
13. Medication and nutritional supplements
Please indicate how many different types you take per day
 - Prescription medication
 - Over the counter medications
 - Nutritional supplements
14. Have you consulted any other health practitioners for the main complaint you are seeing the chiropractor today?
 - Medical Practitioner
 - Physiotherapist
 - Osteopath
 - Massage Therapist
 - Occupational Therapist
 - Acupuncturist
 - Other (please specify)
15. Have you been to a chiropractor before this one?

2.2 & 2.3 SHORT FORM-12 (SF-12) & Pain Impact Questionnaire-6 (Revised)

For each of the following questions, please mark an in the one box that best describes your answer.

1. In general, would you say your health is:

Excellent	Very good	Good	Fair	Poor
▼	▼	▼	▼	▼
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

2. The following questions are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

Yes, limited a lot	Yes, limited a little	No, not limited at all
▼	▼	▼

a Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf

₁ ₂ ₃

b Climbing several flights of stairs

₁ ₂ ₃

3. During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

All of the time	Most of the time	Some of the time	A little of the time	None of the time
▼	▼	▼	▼	▼

a Accomplished less than you would like

₁ ₂ ₃ ₄ ₅

b Were limited in the kind of work or other activities

₁ ₂ ₃ ₄ ₅

4. During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

All of the time	Most of the time	Some of the time	A little of the time	None of the time
▼	▼	▼	▼	▼

A Accomplished less than you would like

₁ ₂ ₃ ₄ ₅

b Did work or other activities less carefully than usual

₁ ₂ ₃ ₄ ₅

5. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

Not at all	A little bit	Moderately	Quite a bit	Extremely
▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

6. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks...

All of the time	Most of the time	Some of the time	A little of the time	None of the time
▼	▼	▼	▼	▼

a Have you felt calm and peaceful? 1 2 3 4 5

b Did you have a lot of energy? 1 2 3 4 5

c Have you felt downhearted and depressed? 1 2 3 4 5

7. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?

All of the time	Most of the time	Some of the time	A little of the time	None of the time
▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

8. How much bodily pain have you had during the past 4 weeks?

None	Very mild	Mild	Moderate	Severe	Very Severe
▼	▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

9. In the past 4 weeks, how much of the time did pain interfere with your enjoyment of life?

Never	Rarely	Sometimes	Very often	Always
▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

10. In the past 4 weeks, how often did pain make simple tasks hard to complete?

Never	Rarely	Sometimes	Very often	Always
▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

11. In the past 4 weeks, how often were your leisure activities affected by your pain (including exercise and hobbies)?

Never	Rarely	Sometimes	Very often	Always
▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

12. In the past 4 weeks, how often did pain make you feel fed up and frustrated?

Never	Rarely	Sometimes	Very often	Always
▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

2.4 Practitioner Feedback (Quantitative and Qualitative)

- Your role;
Practitioner
Support staff
- Please enter your unique clinic code
Clinic Code
Postcode of the practice
- What is your gender?
- What is your age in years?
- If you are a practitioner, how many years in have you been in practice?
- Thinking about your experience with this research project, please rate the following on the scale
Very poor Poor Good Excellent
Recruitment
Background information
Resources and training
Implementation
Forms and questionnaires
Patient compliance

Impact on normal clinic operations
Access to research team
Follow up
Comments (Text Box for comments)

7. Please provide a reflective assessment of your experience as a participant in this study. In particular, challenges and suggestions for improvements in future projects.
Text box for comments
8. Based on your experiences with this project please indicate your feelings about being involved in future projects

Less likely No change More Likely

Please choose one

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