Characteristics of Chiropractic Patients Being Treated for Chronic Low Back and Neck Pain

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Abstract

Objectives: Chronic low back pain (CLBP) and chronic neck pain (CNP) are the most common types of chronic pain, and chiropractic spinal manipulation is a common nonpharmacologic treatment. This study presents the characteristics of a large United States sample of chiropractic patients with CLBP and CNP.

Methods: Data were collected from chiropractic patients using multistage systematic stratified sampling with 4 sampling levels: regions and states, sites (ie, metropolitan areas), providers and clinics, and patients. The sites and regions were San Diego, California; Tampa, Florida; Minneapolis, Minnesota; Seneca Falls and Upstate New York; Portland, Oregon; and Dallas, Texas. Data were collected from patients through an iPad-based prescreening questionnaire in the clinic and emailed links to full screening and baseline online questionnaires. The goal was 20 providers or clinics and 7 patients with CLBP and 7 with CNP from each clinic.

Results: We had 6342 patients at 125 clinics complete the prescreening questionnaire, 3333 patients start the full screening questionnaire, and 2024 eligible patients completed the baseline questionnaire: 518 with CLBP only, 347 with CNP only, and 1159 with both. In general, most of this sample were highly-educated, non-Hispanic, white females with at least partial insurance coverage for chiropractic care who have been in pain and using chiropractic care for years. Over 90% reported high satisfaction with their care, few used narcotics, and avoiding surgery was the most important reason they chose chiropractic care.

Conclusions: Given the prevalence of CLBP and CNP, the need to find effective nonpharmacologic alternatives for chronic pain, and the satisfaction these patients found with their care, further study of these patients is worthwhile. (J Manipulative Physiol Ther 2018;xx:1-11)

Key Indexing Terms: *Manipulation, Spinal; Chronic Pain; Low Back Pain; Neck Pain; Chiropractic; Manipulation, Chiropractic*

Introduction

Chronic low back pain (CLBP) and chronic neck pain (CNP) are the most common types of chronic pain.[1,2] Their combined prevalence is estimated to be about 10% to 20% of the adult population.[1,3-10] Although there are many treatments for chronic pain,[2,11] because of the dangers of opioid abuse, recent efforts have focused on finding effective nonpharmacologic therapies.[12] Chiropractors, osteopaths, and physical therapists are the provider types most likely to deliver spinal manipulation,[13] which is 1 of the nonpharmacologic treatments recommended for these conditions.[14-18] In the US, about 30% of those with spinal pain have used chiropractic.[19]

However, what is unknown is how those with CLBP and CNP are using chiropractic. Are they using short courses of chiropractic care or are they using this care long term? What are their motivations for using chiropractic care, and are they satisfied with this care? Several studies have described the characteristics of typical chiropractic patients,[13,20-24] and others have described the characteristics of patients with back or neck pain,[6-10,25] including some that focus on chronic forms of these conditions.[5,26,27] However, no study provides a detailed look at the demographics; attitudes; motivations; pain and functioning;

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and the utilization of chiropractic, self-care, and other health care among those using chiropractic care for their CLBP and CNP. Given the prevalence and long-term nature of chronic pain, understanding the issues of this population are essential to developing successful policies for the treatment of CLBP and CNP.

This study describes the characteristics of a large sample of CLBP and CNP patients in the United States who use chiropractic care for their CLBP and CNP. These data were collected in support of a larger project to advance methods to determine the appropriateness of manipulation and mobilization for CLBP and CNP.

Methods

Ethical Approval

The study was approved by the Human Subject Protection Committee at the RAND Corp. This study was registered as an observational study on ClinicalTrials.gov (ID: NCT03162952).

Data Collection

This study uses data collected from a national sample of chiropractic patients in the United States with CLBP and CNP. We used Multistage Systematic Stratified Sampling with 4 levels of sampling: regions and states, sites (ie, metropolitan areas), providers and clinics, and patients. We recruited chiropractic practices in large metropolitan areas in 6 states chosen to represent the major geographic regions of the United States and to offer a variety of state laws and regulations related to chiropractic care: San Diego, California; Tampa, Florida; Minneapolis, Minnesota; Seneca Falls and Upstate, New York; Portland, Oregon; and Dallas, Texas.

Our goal was to recruit at least 20 chiropractic providers or clinics per site, with our chiropractor sample selected to reflect US proportions of provider sex, years of experience, and patient load, as shown in the 2015 Practice Analysis Report from the National Board of Chiropractic Examiners.[28] Specifically, our goal for each site was to recruit 30% female practitioners; 30% with 5 to 15 years of experience and the rest with more (those with less than 5 years' experience were excluded as potentially not having sufficient patient load); and equal proportions of those treating between 25 and 74 patients per week and those treating 75 or more patients per week. We also attempted to recruit providers who graduated from a variety of colleges and excluded providers where more than half of their patients have open personal injury or workers' compensation litigation and providers who do not use manual manipulation or mobilization (ie, instrument-assisted-only practice) because these therapies are overwhelmingly used by chiropractors for back pain and neck pain.[13,21,23]

Our aim was to recruit 7 CLBP and 7 CNP cases per clinic to obtain a total of 800 CLBP and 800 CNP study participants. In addition to posters and fliers notifying patients about the study, the front desk staff at each clinic was asked to make a short iPad-based prescreening questionnaire available to every patient who visited the clinic during a 4-week period and to keep a daily tally of all patients seen by participating chiropractors. This prescreening questionnaire was used to determine if patients met the study inclusion criteria: at least 21 years of age; could speak English well enough to complete the remaining questionnaires; not presently involved in ongoing personal injury or workers' compensation litigation; and have now or ever had low back pain or neck pain. Patients who met these criteria were invited to be in the study, and if they agreed, they were asked to provide their email addresses and phone numbers. All patients who provided email addresses received an electronically delivered $5 gift card.

Patients invited to the study were emailed a longer screening questionnaire to determine whether they met the criteria for CLBP and CNP (ie, reported pain for at least 3 months prior to seeing the chiropractor or stated that their pain was chronic). If they were eligible for the study, patients then consented to it and were asked additional questions. Those not eligible and those who were eligible and started this screening questionnaire but did not finish it received a $5 gift card. Those eligible, who consented and went on to complete the remaining questions on this survey, received a $20 gift card and were then invited to complete a series of 7 online questionnaires (baseline, 5 shorter biweekly follow-ups, and end line) over 3 months. Participants received a $25 gift card for completing the baseline questionnaire and could receive a total of $200 in incentives for completing all questionnaires in the study.

The survey instruments were developed using a series of focus groups, exploratory interviews, cognitive interviews, and 2 pilot studies. Extensive literature searches were used to identify items and instruments for consideration. The evidence from our first pilot test of substantial participant dropout at the point of the longer screening questionnaire (originally fielded as a telephone interview) resulted in our move to complete online delivery of all surveys, a decision which was validated by the results of our second pilot test. Copies of the survey instruments are available upon request.

Statistics

We report descriptive statistics from the screening and baseline questionnaires. Means and standard deviations are provided for continuous variables and counts and frequencies are provided for categorical variables. In general, pain-related questions were asked specifically about someone's CLBP or CNP. When someone had both CLBP and CNP, some of these questions were only asked for the type of pain