

Maintenance care: towards a global description

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Objective: To describe and compare maintenance care as practised in the United States and Australia.

Design: Postal surveys of randomly selected samples of American and Australian chiropractors was undertaken.

Results: Six hundred and fifty eight American (44%) and 138 Australian (35%) chiropractors returned completed questionnaires. Maintenance care is perceived to reduce recurrences, to maintain optimal health and provide relief for irreversible conditions. Health benefits are largely achieved by providing chiropractic adjustments, exercise and dietary counselling. Maintenance care is perceived to be particularly effective for managing musculoskeletal problems and stress but is also effective for conditions affecting the respiratory, gastro-intestinal, and to a lesser extent cardiovascular and reproductive systems. Respondents believe that maintenance care should be funded by insurance but recognise the need for further research.

Conclusion: Description of a globally practised form of maintenance care helps to clarify scope of practice issues. More fundamental question of how and whether each of the elements described contributes to a wellness outcome can only be resolved with further research. (JCCA 2001; 45(2):100-105)

KEY WORDS: chiropractic, maintenance care, prevention.

Objectif : Décrire et comparer les soins d'entretien tels que dispensés aux États-Unis et en Australie.

Concept : Enquêtes par courrier auprès de plusieurs échantillons de chiropraticiens américains et australiens, sélectionnés de manière aléatoire.

Résultats : 658 chiropraticiens américains (44 %) et 138 chiropraticiens australiens (35 %) ont renvoyé le questionnaire rempli. Les soins d'entretien sont perçus comme un facteur de réduction des rechutes et de maintien d'une santé optimale et comme source de soulagement d'états irréversibles. Les bénéfices pour la santé découlent essentiellement d'ajustements chiropratiques et de conseils en matière d'exercice et de régime alimentaire. Les soins d'entretien sont jugés particulièrement efficaces dans le traitement des problèmes musculo-squelettiques et du stress, mais ils sont également efficaces pour les états affectant les voies respiratoires, l'appareil gastro-intestinal et, dans une moindre mesure, les systèmes cardio-vasculaire et reproducteur. Les enquêtés pensent que les soins d'entretien doivent être pris en charge par les assurances, mais reconnaissent le besoin de recherches plus approfondies.

Conclusion : La description d'une forme mondialement dispensée de soins d'entretien permet d'apporter des éclaircissements à la portée des problèmes de dispense. La question plus fondamentale consistant à savoir comment et si les éléments décrits contribuent au bien-être de la personne peut seulement être résolue en poussant les recherches. (JACC 2001; 45(2):100-105)

MOTS CLÉS : chiropraxie, soins d'entretien, prévention.

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A random sample of US chiropractors found that although two out of three respondents believed that chiropractic was viewed as a therapeutic modality, eight out of ten believed that it should be viewed as a complete system of health care.¹ Most chiropractors certainly consider themselves primary care practitioners² and the chiropractic profession is legally permitted to and does offer a broad range of diagnostic and treatment procedures.³ A study involving adult primary care physicians and members of a health maintenance organisation furthermore found more interest in having the HMO cover manipulative and behavioural medicine therapies than other 'alternative therapies'.² It is consequently important that the nature of preventive services provided by chiropractors is clarified.

One survey found the prevention practices most often acknowledged by US chiropractors related directly to musculoskeletal problems with counselling emphasising lifting techniques, postural education, fitness exercise and injury prevention.⁴ Another found that chiropractic maintenance care may be construed to provide a more comprehensive description of the type of long term preventive care patients may expect from the chiropractic profession.⁵ Until recently maintenance care has not been clearly described.^{5,6} This study seeks to compare data from the US and Australian surveys and offers a preliminary suggestion for a global description of maintenance care.

Method

The postal questionnaire is a well established means of biomedical inquiry. The survey was initially designed after a careful review of previously published work related to maintenance care. Subsequent to that, a small pilot in the USA consisting of a convenience sample of 24 practicing chiropractors was used to test and revise the questionnaire. Chiropractors in the United States were randomly selected by postal zip codes using the computerized database of the National Directory of Chiropractic. This database is updated continually in an attempt to include all chiropractors in active practice. This sampling method insured inclusion of chiropractors from all fifty states. In addition to the survey, an addressed and postage paid return envelope was included. Participants were advised that their responses would be kept confidential.

A postal survey of members of the Chiropractors' Association of Australia was also undertaken. In an effort to better ascertain the perceptions of mainline Australian

chiropractic, the Australian survey was restricted to members of an Association that has traditionally been regarded as representing chiropractic in this country. Four hundred names were randomly selected from the 1999 directory of the Chiropractors' Association of Australia. Care was taken to ensure that chiropractors from each of the states and territories were included. Each of the chiropractors selected using random numbers was mailed a covering letter, an informed consent form, a questionnaire and a reply paid envelope. Potential participants were asked to complete the questionnaire and return it with the signed consent form. Participants were given the option of remaining anonymous. No reminders were sent.

Because of the absence of previous research, the questionnaire included 40 questions covering a broad range of issues. The first five questions were fill-in and asked the respondents for age, sex and other general demographic information. This was followed by 28 questions related to the following; the purpose of maintenance care, the types of conditions or body systems that benefit most, which age groups derive the most benefit, and what therapies or treatment interventions are included. These 28 questions used a 5 point Likert scale format. The scale permitted a range of responses from 'strongly agree' to 'strongly disagree'. The final 7 questions solicited a brief fill-in response. This concluding part of the survey requested information about how frequently maintenance care is recommended, how many comply with the recommendations and the financial impact of providing these services.

The pilot study identified diverse opinions related to several issues. Most notable was the question of what was the purpose of MC. Because of this, the survey permitted chiropractors to select from a wide variety of possible responses rather than the investigators attempting to impose an arbitrary definition of the purpose of MC.

Results

The response rate of the US sample was 44%, that of the Australian case study was 35%. Table 1 compares the characteristics of the US and Australian chiropractic sample.

Table 2 describes and compares the purposes for which chiropractic respondents use maintenance care and Table 3 identifies the therapeutic interventions used when practising maintenance care. Table 4 outlines and compares

Table 1
The Study Sample

CHARACTERISTIC	USA SAMPLE (n = 658)	AUSTRALIAN (n = 138)
Males	83%	80%*
Females	17%	17%*
Age	76% under 45 years old	60% 40 years old or under
Years In Practice	57% 10 years of less	47% 10 years or less
* 3% unknown		

Table 2
The Purpose of Maintenance Care

FUNCTION OF MAINTENANCE CARE	USA SAMPLE (n = 658)	AUSTRALIAN (n = 138)
Minimise recurrence/exacerbations	95%	92%
Maintain/optimize health	88%	80%
Provide palliative care for 'incurable' problems	85%	78%
Determine and treat subluxations	80%	83%

Table 3
Important Therapeutic Components of Maintenance Care

THERAPEUTIC COMPONENTS OF MAINTENANCE CARE	USA SAMPLE (n = 658)	AUSTRALIAN (n = 138)
Adjustments / manipulation	97%	85%
Exercise	96%	93%
Proper eating habits	93%	81%
Patient education eg smoking, alcohol, drug abuse	84%	72%
Use of vitamin and mineral supplements	67%	49%

Table 4
Conditions/Systems Amenable to Maintenance Care

DISORDERS/ORGAN SYSTEMS THAT BENEFIT FROM MAINTENANCE CARE	USA SAMPLE (n = 658)	AUSTRALIAN (n = 138)
Musculoskeletal system	94%	91%
Stress	91%	83%
Respiratory system	79%	76%
Gastro-intestinal system	75%	72%
Cardiovascular system	58%	46%
Reproductive system	56%	57%

Table 5
Perceptions About the Status of Maintenance Care

MAINTENANCE CARE	USA SAMPLE (n = 658)	AUSTRALIAN (n = 138)
Is supported by adequate research	40%	22%
Requires more research	93%	97%
Should be paid for by insurance	72%	69%
Is performed by most chiropractors	82%	60%

clinical circumstances which respondents perceive as responsive to maintenance care.

Table 5 compares the chiropractors perceptions about how well maintenance care is supported by research, the need for more research in this area and the desirability of insurance health cover for this practice. It also identifies the extent to which chiropractic respondents believe maintenance care is used. It should be noted that although Australian chiropractors believe only 6 in 10 chiropractors practise maintenance care, 97% of Australian respondents to this study indicated they were prepared to offer maintenance care in their clinic.

Discussion

There appears to be a marked similarity in the perceptions

of American and Australian chiropractors with respect to the purpose, the organ system responsiveness to care and the therapeutic composition of maintenance care. Maintenance care is certainly perceived to reduce recurrences (U.S. 95%, Australia 92%), to maintain optimal health (U.S. 88%, Australia 80%) and provide relief for persistent or irreversible conditions (U.S. 85%, Australia 83%). These health benefits are achieved by providing chiropractic adjustments (U.S. 97%, Australia 85%) and exercise (U.S. 96%, Australia 93%) and dietary counseling (U.S. 93%, Australia 81%). A large number of chiropractors also include patient education to quit unhealthy habits (U.S. 84%, Australia 72%) and some may offer advise on nutritional supplementation (U.S. 67%, Australia 49%). While this study suggests that American chiropractors

may offer more comprehensive health intervention than a number of their Australian counterparts, maintenance care in both countries does involve both manual therapy and patient education.

Maintenance care is seen to be particularly effective for managing musculoskeletal problems and for stress management. It is also seen to be reasonably effective for conditions affecting the respiratory and gastro-intestinal systems and less effective for cardiovascular and reproductive system problems. The response rate to the respiratory questions reflects the all-inclusive nature of the question. Respondents may have interpreted the questions as including both a functional and/or structural components. In hindsight it may have been better to differentiate between functional disorders characterised by muscle spasm eg bronchospasm as in asthma, and structural changes as in emphysema and chronic bronchitis. The tendency for Americans to be marginally more enthusiastic about the various aspects of maintenance care investigated may derive from a number of factors including; differences in educational systems, attitudes of patients towards health promotion, the growing but limited reimbursement for wellness related services, or many other socioeconomic factors. These marginal differences may not reflect any real difference in the perceptions of chiropractors about the nature and function of maintenance care.

While there is consensus that more research into maintenance care is required, a major discrepancy that emerged between the two samples related to the adequacy of the research basis of maintenance care. The Australian chiropractic sample proved more sceptical. Such scepticism is not misplaced. Studies have repeatedly shown that "Even chiropractors trained in the same technique seem to show little consensus on the indications for the necessity to adjust specific segments of the spine".⁷ Others found their "study of commonly used chiropractic diagnostic methods in patients with chronic mechanical low-back pain to detect manipulable lesions in the lower thoracic spine, lumbar spine, and the sacroiliac joints has revealed that the measures are not reproducible".⁸ Even researchers who consider "Many of the clinical tests of passive general motion range were shown to be reliable." suggested the need for further studies to establish reliability.⁹

Chiropractic research is evolving. Rather than chiropractors continuing to view 'science and research as marketing strategies',¹⁰ a national meeting to develop a

research agenda for the chiropractic profession that targets the need to increase chiropractic's research capacity was convened in 1996 in Washington.¹¹ While this American ferment in chiropractic research demonstrates a laudable trend, the scientific basis for correction and prevention of subluxations, the unique characteristic of chiropractic maintenance care, remains suspect. After concluding that none of the tests they had studied had been sufficiently evaluated in relation to reliability and validity, Hestock and Leboeuf-Yde suggested that: "The detection of the manipulative lesion in the lumbo-pelvic spine depends on valid and reliable tests. Because such tests have not been established, the presence of the manipulative lesion remains hypothetical".¹² Eight out of 10 chiropractors perceive one of the functions of maintenance care is to determine and treat subluxations and about 9 in 10 perceive adjustments to be an important therapeutic component of maintenance care. Given this context, it is not realistic for the chiropractic profession to expect health insurance agencies to fund its preventive efforts within the health care system until dysfunctions can be reliably detected and corrected with a consistently predictable improvement in outcome.

Despite progress and commitment to chiropractic research and chiropractors holding firmly to the belief that maintenance care will enhance health, the absence of research to validate this belief still makes it impossible to answer the question posed almost a decade ago: "Preventive chiropractic: what justification?".¹³ Furthermore, the current research agenda to investigate barriers to usage of chiropractic; develop models to explain chiropractic usage; determine cost-effectiveness of different chiropractic procedures; develop valid measures and predictors of quality of chiropractic care; and examine satisfaction with chiropractic services may not necessarily address this issue.¹⁴ The wider research community is being challenged to change its framework. The potency of the 'placebo' has been acknowledged^{15,16} and maximising placebo benefits are to be encouraged.¹⁷ A research agenda to establish the effective elements of interventions, placebo and otherwise, needs to be formulated.¹⁸ As chronic low back pain is persistent once it is established, research that emphasise maintenance of employment and function is likely to be most productive.¹⁹ It is within this evolving framework that chiropractic maintenance care may achieve validation as a valuable therapy.

Conclusion

Description of a globally practised form of maintenance care helps to clarify scope of practice issues but fails to address the more fundamental question of how and whether each of the elements described contributes to a wellness outcome. More research is urgently required.

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