

The Use of Acupuncture by Chinese Medicine Practitioners in the Australian Workers Compensation System: Results of a National Survey

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ABSTRACT

Statutory recognition of Chinese medicine (CM) practitioners and their use of acupuncture in the treatment of injured workers does not exist in most workers compensation (WC) systems throughout Australia, even though they are an accepted part of that system. Consequently, there is little data available on the use of acupuncture and the engagement of the CM profession in this system. This paper reports on the first survey study designed to provide information on the CM profession's engagement with the WC systems and their perceptions of these systems. Results: Five hundred completed surveys were returned, which represented a response rate of 25%. Results indicate that over 50% of the CM practitioners across Australia were engaging with the various WC systems and despite this engagement were also reporting varying levels of confusion and difficulties with the WC system frameworks. There was a noted relationship between the demographic information collected (as part of the survey) and a practitioner's perception of the WC systems. Overall, practitioners' experiences of the WC system were overwhelmingly negative, irrespective of their state or territory of residence; yet, 67% of respondents reported they would like to increase their WC patient load in the future. Conclusions: Despite the CM workforce engagement with the various state and territory based WC systems, there remains a lack of statutory gazettement of CM practitioners as treatment providers and this may account for some of the noted confusion and negativity reported in the survey results. While there was some variance in individual practitioner's perceptions of the system, a common finding was an overall lack of knowledge about this system. This raises several issues that range from the timely provision of treatment services by CM practitioners, reporting processes to insurance companies, the subsequent assessment structures of those insurers and the assessment of the appropriateness of the acupuncture treatment provided. These issues need to be addressed in practical terms with the development of policy and protocols to assist CM practitioners and also made a priority given the consistent growth in treatment frequency reported in the decade from 1994 to 2004, and which is only projected to increase given the surveys participants' wishes to engage further with the WC systems.

KEYWORDS Acupuncture, Chinese medicine, Workers Compensation, demographic survey, Australia, work-related injuries.

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Introduction

Australia's workers compensation (WC) laws are designed to protect employees who become ill or injured during the course of their employment. There are currently eleven different WC systems operating throughout Australia. An underlying key element present within each system is to ensure that workers who are suitable for cover are covered for the treatment and management of any injuries they sustain during the course of their employment.

While designed to ameliorate the impact and costs at a personal level, workplace injuries and illnesses still pose a significant cost impact to the broader Australian community which cannot be ignored. For example, nationally, there were more than 230 000 major WC claims during the 2005 to 2007 financial year periods. In New South Wales (NSW) alone there were 41 231 compensable claims amounting to a gross cost of \$812 million between July 2006 and June 2007.¹ The non-financial impacts to the Australian community are equally significant especially when workplace injuries and illnesses directly impact a worker's normal daily functioning, including the related indirect cost to their families, employers and the wider community.

Central to any state or territory WC system are provisions for early medical assistance aimed at promoting an injured worker's return to work in a safe, timely and durable manner.² Medical assistance covers rehabilitation costs, hospital expenses and access to therapy services, including the cost of treatment providers. Given the physical nature of most work-related injuries, treatment providers often need to have a 'physical therapy' focus as part of their treatment scope.^{1,3} This encompasses physiotherapists, osteopaths, chiropractors, massage therapists and CM practitioners (and their use of acupuncture).

While these treatment provider groups are accepted as a part of most Australian state or territory WC systems and integral therefore in the management of the injury, contradictorily they do not all receive the same level of support to assist injured workers in this process. The difference in levels of assistance stems from whether the practitioner's related profession is gazetted (legislated within the WC system) or not gazetted. For the CM profession, this means there is a deficit of information, policy and procedures for practitioners working in the WC system (because the CM profession is a non-gazetted profession (whilst the other four professions noted above are gazetted)). The only exception is in Victoria where CM practitioners who meet the requirements of WorkSafe Victoria (the Victorian workers compensation authority) are permitted to provide acupuncture services for injured workers⁴. Consequently, no data exists on the level of interaction occurring between CM practitioners and the WC systems. This has bearing upon the suitable management of the WC patient and their

injury, the appropriate assessment of any treatment outcomes and reporting subsequent progress to the Scheme Agents (mostly insurance companies). Thus while acupuncture and CM practitioners are an accepted part of most WC systems in Australia, their ability to fully engage with these systems is hindered by the paucity of resources specific to the profession's needs. While this certainly disadvantages the CM practitioner, it also potentially disadvantages the injured worker and inhibits effective integration of the CM profession to work alongside other treatment providers working within the WC system.

Therefore a survey was designed to gather from members of the CM profession who use acupuncture, baseline demographic information about their interaction with and perceptions of the various WC systems. The importance of this was to provide information to regulatory authorities, educators and treatment providers on the use of acupuncture (as part of a scope of practice) by CM practitioners for the treatment of work-related injuries. Given the societal shift towards a greater inclusion of complementary and alternative medicine (CAM) as a treatment of choice⁵ and a subsequent acceptance of acupuncture by general practitioners (GPs) (who have continued to increase their rate of referrals to CM practitioners for acupuncture treatment),⁶ the treatment of injured workers by CM practitioners will only continue to grow.

This paper presents the first series of results from 12 of the 31 survey questions. This includes practitioner levels of involvement and their perceptions of the WC systems and a general overview of the respondents' demographic information, including age, gender, education and training, years in clinical practice, state of practice, practice type, and area of specialty. A further in-depth correlation analysis of the results has been reserved for publication in a subsequent article.

Methods

AIMS

The aim of this study was to obtain an overview of the CM profession's engagement with the various WC systems within Australia. To this end, a survey was designed and distributed nationally to members of the profession to determine:

- The number of practitioners providing treatment to injured workers;
- Their perceptions and views of this system;
- The frequency of treatment to claimants; and
- Demographic data (to contextualise responses received).

SURVEY DESIGN

A comprehensive, 31-question survey tool was designed to address the four objectives listed above. The survey tool was developed by a panel of CM practitioners with expertise in

the WC system and secondary input was provided from experienced persons involved with the WC industry. The survey tool was piloted to random members of the CM profession prior to national distribution and amendments were made according to feedback received from this process. Ethics approval for the survey and distribution was obtained through the University of Technology, Sydney (UTS) Human Research Ethics Committee (HREC).

The survey questions were aligned with five categories of information. These included: experience(s) in the WC system and workplace management systems of WC patients; demographic information; clinical practice; education and training; and finally, feedback on the practitioner's thoughts for future directions they would like to see for the profession to better engage with the WC system.

SURVEY DISTRIBUTION

The survey was distributed using three methods over a six month period:

1. A national postal mail out (via five distributors);
2. Personal distribution at two different acupuncture and CM symposiums – one international symposium and one Australasian conference; and
3. Electronic distribution by e-mail via the membership database of the Australian Acupuncture and Chinese Medicine Association Ltd.

There was no single mail-out list. Therefore, a six month distribution period was undertaken to maximise the coverage to all possible members of the target population. To maintain UTS ethics requirements and privacy laws, mailing lists remained with the distributors. The number of surveys sent out by each distributor through the postal mail-out process was based on the figures provided from each distributor. Mail copies of the survey sent included a hard copy format of the survey, a pre-paid envelope, informed consent form, a confidentiality clause, contact details of relevant persons at UTS and the UTS HREC ethics approval number.

SUBJECT SAMPLE

The survey was aimed at practitioners with primary qualifications in acupuncture and/or CM. Prospective subjects were identified through membership lists of key CM professional associations and mailing lists of related industry groups affiliated with the CM profession. Key industry groups were identified as suppliers of acupuncture and CM products or suppliers of education materials to the Australian CM profession.

There were five professional associations and four industry groups approached and all supported the study. Discussions with the industry groups revealed a high probability of overlapping members and thus a waste of resources to mail

out to all four groups. Therefore, the final distribution was conducted through four professional associations and one industry group.

The subject selection criteria included practitioners with primary qualifications in CM as outlined by the Australian Guidelines for Traditional Chinese Medicine Education (2001)⁷ and those practitioners who obtained primary qualifications in CM prior to the introduction of the Australian Guidelines for Traditional Chinese Medicine Education (2001). Practitioners also had to be in clinical practice and using acupuncture as part of their scope of practice. The exclusion criteria included health professionals who undertook a short course(s) in acupuncture to obtain their qualification (and hence claimed acupuncture as an adjunct to their practice scope) and/or whose course did not meet minimum training standards.⁷ Also excluded were those CM practitioners who primarily used Chinese herbal medicine (CHM) and did not use acupuncture.

Exclusion criteria were applied for two reasons. First, to ensure the results depicted a true representation of members of the CM profession in Australia and their respective views on the use of acupuncture in the WC system. Second, to ensure the target respondents were suitably qualified in acupuncture, and were actively using acupuncture within their clinical scope of practice. The reason for excluding practitioners who only practiced CHM was due to the physical nature of most work-related injuries¹ (as they involve the musculoskeletal system) for which acupuncture (and its related scope of practice) is arguably a more appropriate treatment intervention than CHM alone.

ANALYSIS OF SURVEY RESPONSES

Data were entered into a Microsoft Excel spreadsheet and then analysed using the Statistical Package for Social Sciences (SPSS) for Windows, version 12. A range of descriptive analyses was applied to the data set dependent upon the level of measurement of each survey question. Hand written comments were collated and classified by themes for analysis.

Results

The results of the survey responses are presented below in two broad sections. The first section presents the results detailing demographic characteristics of the survey respondents (to contextualise their responses within the WC system). As such, the second results section relates to the respondents' views and experiences (if any) of the WC system they noted in the survey.

RESPONSE RATE

Based on the figures provided by the professional CM associations and the industry group, a total of 3315 surveys were prepared for distribution nationally. To maintain

confidentiality of each group's distribution list and comply with UTS HREC requirements, the surveys were distributed by the professional CM associations and industry group themselves using their own mailing lists. The survey forms and accompanying literature were prepared centrally and bundled to the specifications of each of the organisations involved in its distribution. Each survey bundle was then sent to one of the four CM professional associations and the lone industry group for further distribution to their membership via their mailing lists. Each of the organisations involved in the survey's distribution had a unique identifying code (the mail list code) appended to each survey in their bundles. This was done for two reasons. Firstly, to identify the mailing list source of any returned and completed surveys; and secondly, to identify duplication. Duplication, where more than one copy of the survey was received by the same person was inevitable given the use of multiple mailing lists. The mail list coding thus allowed for the calculation of an accurate participant sample size and subsequent survey return rate (explained below).

There were 500 completed surveys returned for analysis. This represented an initial response rate of 15.75% (given 3315 were initially distributed). Of the 500 surveys included for analysis, some questions were missed by the respondents or were incorrectly filled; accounting for pieces of missing data (noted within the analysis results below). Given the use of various methods of distribution and multiple mailing lists, there was always the chance that some practitioners would receive multiple copies of the survey. It was necessary then to use the mail list code on the returned survey to identify where duplication occurred in order to calculate the actual sample of the population of practitioners included in the study and thus calculate the survey's actual return rate.

The process used for excluding those duplicate surveys sent to the same individual was undertaken in three ways. Firstly, surveys returned with the industry mail list code were cross referenced with any noted CM association memberships (question 9 in the survey); and where the noted CM association(s) membership was the same as one of the four CM professional associations whose mailing list was used for distributing the survey, the total survey distribution figure was reduced accordingly. Secondly, this process was repeated with surveys received with a CM professional association mail list code. Again, the association membership(s) listed at question 9 was cross referenced to the mail list code on the returned survey. The survey distribution count was reduced by the number of additional CM professional associations the respondent indicated being a member of and whose mailing list(s) were also used for distributing the survey but which did not match the unique mail list coding used on the returned survey. A final comparative analysis was also performed using the respondent's indication of their reported association

membership(s), postcode (question 3) and identical responses provided on the surveys. After accounting for duplications, the final distribution figure represented a sample of 2000 practitioners (receiving 3315 surveys, indicating that 1115 surveys were duplications). Therefore, accounting for duplications, the 500 completed surveys received for analysis represented a response rate of 25%.

DEMOGRAPHIC CHARACTERISTICS OF SURVEY PARTICIPANTS

AGE AND GENDER

There were more female (53%) than male respondents (47%). Respondents ages ranged from 20 to 61 years or greater. 84.3% of the respondents sampled were aged between 26 to 55 years of age while the remaining 15.7% indicated their age as less than 26 or over 55 years of age. When a respondent's age was compared with their sex, there were differences noted between the proportional representation of males and females. For example, there were a higher number of females aged 20–30 years (23.6%) compared to males of the same age range (7.8%). There were comparatively more males aged 41–45 (21.4%) than females (10.5%), and more males represented in the 56+ age group (15.8%) than females (5.0%). It is likely that this reflects national education trends with more women entering tertiary education than men in recent years. In comparison, the decline in women aged between 35 and 45 years of age was seen as a reflection of women leaving the workforce and having children later in life. (The Australian Bureau of Statistics⁸ reported the increase in the median age of all women who gave birth in 2005 was 30.7 years).

In contrast, the survey results indicated more women responders aged between 46 and 55 which may suggest women re-entering the workforce after childrearing. The data showed proportionally more men in the workforce aged 56 and older than women and this likely reflects historical workforce trends from previous decades where men had higher work participation rates than women. Results are presented in Table 1 with a diagrammatic representation of these presented in Figure 1.

HIGHEST LEVEL OF FORMAL EDUCATION IN CM/ACUPUNCTURE

There were 493 responses to this question and seven non-responses. Over two thirds of respondents reported gaining a tertiary level qualification (68.9%) in CM. Over half of the respondents (55%) indicated this as a bachelor degree qualification, while 13.9% indicated a postgraduate qualification (in addition to a bachelor degree) as their highest qualification. Postgraduate qualifications in CM were listed as doctorates (PhD) (1.4%), professional doctorates (2.0%) or masters (by coursework and/or research) (10.5%). The remainder of respondents reported attaining either an advanced diploma or diploma qualification (29.2%). Refer

to Table 2 for details. These respondents were most often in practice for more than ten years. This reflects the historical emergence of these qualifications.

PLACE OF TRAINING

Respondents were asked whether they had received their CM training within Australia or overseas. Three quarters of the respondents (76.5%) reported Australia as their sole place of

training, whilst 11% reported an overseas location only. The remaining 12.5% of respondents indicated they had received training in both Australia and also from an overseas location. The responses to this question were likely skewed. The actual number of respondents who had both Australia and overseas study was in fact less than that indicated once courses with appended overseas study components were considered as primarily occurring in an Australian locale. Results are also presented in Table 2.

TABLE 1 Respondents' age and gender

Gender					Respondents (n) (subtotal n = 487)	Valid percentage (%)
Male					229	47.0
Female					258	53.0
Missing					13	
Total					500	
Age distribution	M		F		(subtotal n = 492)	
	n	%	n	%		
20-25	6	2.6	21	8.1	27	5.5
26-30	12	5.2	40	15.5	52	10.6
31-35	31	13.5	40	15.5	71	14.4
36-40	27	11.8	31	12.0	58	11.8
41-45	49	21.4	27	10.5	76	15.4
46-50	41	17.9	46	17.8	89	18.1
51-55	27	11.8	40	15.5	69	14.0
56-60	15	6.6	7	2.7	23	4.7
61+	21	9.2	6	2.3	27	5.5
Subtotal	229		258			100%
Missing					8	
Total					500	

Subtotal numbers differ as five respondents who provided their age did not provide details of their gender.

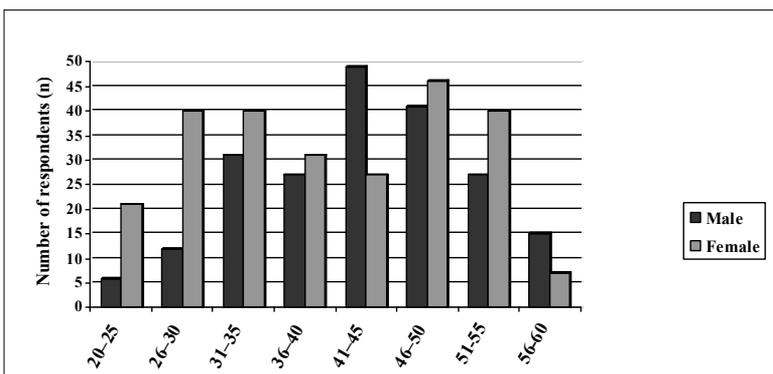


FIGURE 1 Diagrammatic representation of age and gender comparison of respondents

NUMBER OF YEARS IN CLINICAL PRACTICE

Respondents reported a range of years in clinical practice from less than one year to over 36 years. Just over 40% of respondents indicated a practice duration of ten years or more; 27.9% indicated a practice length of less than four years, while 30.3% indicated a practice length of between four and ten years. Results are presented in Table 3.

At face value, the survey results portray a relatively young professional group with over half of the respondents indicating a practice length of less than 10 years. However, there were likely several factors which contributed to a 'skewing effect'. For example, the year of availability of degree programs and the related educational institution were two such factors. That is, there was a burgeoning of the availability of CM courses in the mid-1990s when CM education moved into the tertiary education system. Another factor influencing the young age of the CM professional group is the fact that bachelor programs gave some level of acceptance of CM as a legitimate treatment option and so more enrolments may have been forthcoming in recent years reflecting a change in societal attitudes towards CAM.⁵

AREA OF PRACTICE

Respondents were asked to detail their primary area of practice by providing postcode details with respect to their practice location(s) and this was then matched to their state or territory of residence. There were 471 responses to this question, with the majority of respondents (96%) indicating New South Wales (NSW), Queensland (QLD) or Victoria (VIC) as their primary place of practice. The remainder of respondents indicated their place of practice as South Australia (SA) (2.3%), Western Australia (WA) (1.1%), Tasmania (TAS) or the Northern Territory (NT) (0.6% combined).

When ABS figures (ending 2005) on national population distribution by state and territory were compared to respondents' practice location, it was apparent there were discrepancies in the representation of the survey responses received. There was an over-representation of respondents returning their surveys in NSW, QLD, and VIC, while the remaining states and territories were under-represented, only accounting for a total of 4.0% of the returned surveys. ABS figures also ranked NSW, VIC and QLD as the three most populated states in Australia (in that

TABLE 2 Highest level of formal education obtained in TCM and place of training

Highest level of formal education in TCM/acupuncture	Respondents (subtotal <i>n</i> = 493)	Valid percentage (%)
PhD	7	1.4
Professional doctorate	10	2.0
Masters (research)	12	2.4
Masters (coursework)	40	8.1
Bachelor degree	271	55.0
Advanced diploma	62	12.6
Diploma	82	16.6
Other	9	1.8
Place of training		
Australia only	377	76.5
Overseas only	54	11
Both Australia and overseas	62	12.5
Missing	7	
Total	500	100%

TABLE 4 Area of practice

Area of practice	Respondents (subtotal <i>n</i> = 471)	Valid percentage (%)	Australian population for period ending June 2005 (%) [*]
New South Wales	184	39.1	34.9
Queensland	155	32.9	19.5
Victoria	113	24.0	24.7
South Australia	11	2.3	7.6
Western Australia	5	1.1	9.9
Tasmania	2	0.4	2.4
Northern Territory	1	0.2	1.0
Subtotal	471	100%	100%
Missing	29		
Total	500		

TABLE 5 Practice type

Practice Type	Respondents (subtotal <i>n</i> = 492)	Valid percentage (%)
Sole practitioners	263	53.5
Work with other TCM practitioners	91	18.5
Work with CAM practitioners	90	18.3
Work with allied health practitioners	41	8.3
Work with general practitioners (GPs)	7	1.4
Missing	8	100%
Total	500	

TABLE 3 Number of years in clinical practice

Years in practice	Respondents (subtotal <i>n</i> = 495)	Valid percentage (%)
0–3.9 years	138	27.9
4–6.9 years	89	18.0
7–9.9 years	61	12.3
10+ years	207	41.8
Subtotal	495	
Missing	5	
Total	500	100%
Mean = 10.21		SD = 8.27

order), followed by WA, SA, TAS and NT,⁹ but the combined population of WA, SA, TAS and NT (as a proportion of the total population) was more than five times that of the survey result. The result was seen as reflecting not only the population distribution but also the availability of acupuncture and CM courses. Refer to Table 4 for details.

PRACTICE TYPE

Over half (53.5%) of the 492 respondents to this question indicated their practice type as 'sole practitioner'. The remainder of respondents indicated their practice type as 'group practice': 18.5% indicated this was with other CM practitioners while a further 18.3% indicated working with CAM practitioners in their practice. Respondents also indicated allied health practitioners and registered medical doctors and/or GPs as part of their practice; 8.3% indicated they were in 'group practice' with allied health practitioners and 1.4% with GPs. Refer to Table 5 for details.

AREA OF SPECIALTY

For the purposes of the survey, 'practice scope' was termed 'CM specialty'. This was the first of three multiple response questions in the paper and results may be read in the same manner in each instance. As a multiple response question, respondents were permitted to make more than one selection as their response. As such, there were a total of 993 selections made by 492 respondents, (and on average two selections were made by each respondent). As a multiple response question the results show both the percentage of total responses and the overall valid percent from respondents. For example, 489 of the responses were for acupuncture. Thus 99.4% of respondents selected acupuncture (489 of 492 respondents) and acupuncture constituted 49.2% (489 of 993) of all responses made. A combined score from 'manual therapy' (inclusive of *tuina* and *other massage* such as shiatsu or western remedial massage) rated second highest of all responses (26.6%). Interestingly, while 48.8% of respondents selected

TABLE 6 Area of speciality

Area of speciality	Responses		Respondents (subtotal n = 492)
	Number of responses	Total percentage of responses (%)	Total percentage of respondents (%)*
Acupuncture	489	49.2	99.4
Chinese herbal medicine	240	24.2	48.8
Chinese remedial massage (Tuina)	140	14.1	28.5
Other massage	124	12.5	25.2
Total	993	100%	

* Total add to more than 100% due to multiple response choices.

TABLE 7 Practitioners who have treated patients within the workers compensation system

Have you treated patients in the workers compensation system?	Respondents (subtotal n = 496)				
	YES	Valid percentage (%)	NO	Valid percentage (%)	
	286	57.7	210	42.3	
If 'YES' (n = 284)					
Number of patients treated in year	2003	2004	Refer to Table 7a		
Total number of patients treated	186	275			
Breakdown of number of patients treated	1-5	126	208		
	6-10	33	36		
	11-15	15	16		
	16-20	3	3		
	21-25	5	1		
	>26	4	11		

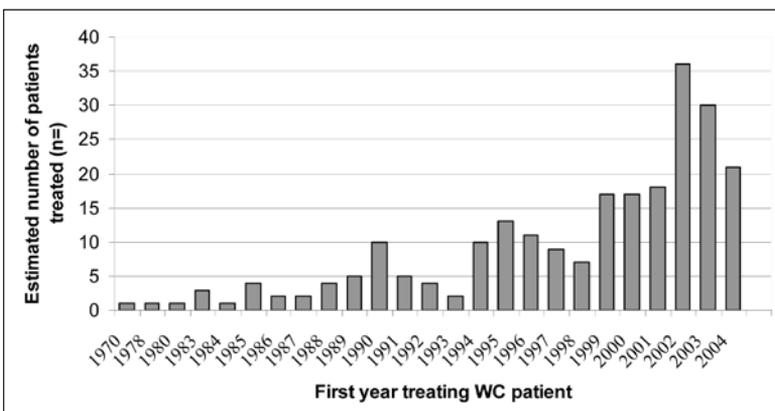


FIGURE 2 First year breakdown of when CM practitioners commenced treating workers compensation patients

CHM as their area of specialty, this was less than the number of respondents (53.7%) who chose manual therapies (tuina and other massage combined). Results are detailed in Table 6.

PRACTITIONERS WHO HAVE TREATED PATIENTS WITHIN THE WC SYSTEM

Respondents were asked to indicate whether they had previously treated patients within the WC system. There were 496 valid responses to this question of which 286 said 'yes' whilst 210 said 'no'.

'Yes' respondents

The 286 respondents who answered 'yes' were directed to a further series of three questions. These additional questions sought to establish when the respondent had first treated WC patients (which year) and also the estimated number of WC patients they had treated overall during the 2003 and 2004 calendar years. Respondents estimated a total of 186 WC patients were treated in 2003 and a further 275 WC patients were treated in 2004, a relative increase of 47.85%. (Note that this figure is not the same as the number of individual acupuncture treatments performed.) Overall, from the subjects' responses, it is apparent that the number of WC patients being treated has steadily increased. Further findings of respondents who *have* treated WC patients are detailed in Table 7 and Figure 2.

'No' respondents

Respondents who indicated they *have not* treated WC patients were asked to select from a list of six options a reason why they had not done so. Respondents were also given the option of selecting more than one response and also writing further additional comments if their reasons did not match the six statements listed. Each 'no' respondent made an average of two selections with a total of 428 selections made.

The two most selected reasons for never having treated WC patients were 'never received referral' and 'never had the opportunity'. Practitioners additionally identified their own lack of knowledge as a reason. Table 7a presents the results of respondents who *have not* treated WC patients.

There were also an additional 27 comments made by respondents detailing their reasons for not having treated WC patients. Comments were overwhelmingly negative and varied depending upon the practitioner's state of practice. For example, comments from QLD practitioners (57.69%) were reflective of the situation faced by CM practitioners where acupuncture treatment provided by a CM practitioner is not recognised by the WC authority in that state. Comments arising from NSW and VIC practitioners were in relation to monetary issues and a perceived lack of adequate remuneration for their services.

TABLE 7a Reasons respondents indicated as not having treated workers compensation patients

If "NO", reason	Responses		Respondents (subtotal n = 210)
	Number of responses	Total percentage of responses (%)	Total percentage of respondents (%)*
Never had opportunity	120	28.0	57.1
Never received referral	128	29.9	61.0
Not interested	31	7.2	14.8
Don't know enough about the system	78	18.2	37.1
WorkCover system too difficult	48	11.2	22.9
Other reason	23	5.4	11.0
Total	428	100%	

* Total add to more than 100% due to multiple response choices.

TABLE 8 Practitioners' perceived difficulties of the workers compensation system

Perceived difficulties	Responses		Respondents (subtotal n = 485)
	Number of responses	Total percentage of responses (%)	Total percentage of respondents (%)*
GPs lack of knowledge of acupuncture and its application to work injuries related injuries	332	29.3	68.5
Lack of knowledge of acupuncture and its application to work related injuries by allied health practitioners	207	18.3	42.7
Your own lack of knowledge on the workers compensation system	216	19.0	44.5
Lack of referrals	245	21.6	50.5
Other reason	134	11.8	27.6
Total	1134	100%	

Dichotomy group tabulated at value 1.

* Total add to more than 100% due to multiple response choices.

TABLE 9 Practitioners actively seeking to treat workers compensation patients and future workers compensation patient workload preferences

Respondents		YES		NO	
		Valid percentage	Valid percentage	Valid percentage	Valid percentage
Do you actively seek to treat workers compensation patients?	n = 493	33	6.7%	460	93.3%
Would you like to increase your workers compensation patient load in the future?	n = 491	335	68.2%	156	31.8%

PRACTITIONERS' PERCEIVED DIFFICULTIES OF THE WC SYSTEM

There were 1134 responses made by 485 respondents reporting their perceived difficulties with the WC system. Over two thirds of respondents (68.5%) identified the 'doctor's lack of knowledge of acupuncture and its application to work-related injuries' as the primary difficulty with the WC system, while 'a lack of referrals' (50.5%) rated the second most commonly selected option. Approximately one in five responses equally rated their 'own knowledge shortcomings' and 'lack of knowledge from allied health practitioners' as the perceived difficulty. Further results are noted in Table 8.

DO YOU ACTIVELY SEEK TO TREAT WC PATIENTS AND WOULD YOU LIKE TO INCREASE YOUR WC PATIENT LOAD IN THE FUTURE?

Respondents were asked if they actively sought to treat WC patients and whether they would like to increase their WC patient load in the future. The results highlighted an overwhelming 93.3% of respondents reporting they did not actively seek to treat WC patients, yet interestingly, over two thirds of respondents (68.2%) indicated they would like to increase their WC patient numbers in the future. These results are presented in Table 9.

Discussion

STRENGTHS AND LIMITATIONS OF THIS STUDY

This study surveyed a large sample of practitioners who identify as members of the CM profession and use acupuncture as part of their practice scope. There is no existing literature that reports on the perceptions and involvement of CM practitioners in the WC system in Australia and the survey results therefore represent the first data of an important and growing area of CM practice in contemporary Australia not previously studied in any major national or state-based survey.

The study used a number of mailing lists sourced from both CM professional associations and an industry group in order to best capture the greatest number of participants at a national level who identified as part of the CM profession. While there was no method of confirming whether all eligible members of the target population received a copy of the survey, the authors are confident that, by using mailing lists from only nationally based CM professional associations, the majority of the eligible population of practitioners received the survey. Despite this assumption, there was always the possibility that eligible practitioners could still be excluded from participation due to a different professional association membership to one of the four listed CM associations, and it was necessary therefore to include an industry supplier's mailing list to limit potential extraneous variation due to subject selection method

bias. Overall, three quarters of the targeted population sample did not respond to the survey and this may have introduced a skewing bias into the reported results.

The WC responses from the survey are specific to the CM profession, while the survey study itself is the first in Australia to focus on this topic. Replication is then necessary to determine whether it is truly representative of the targeted population's thoughts and perceptions of the WC system and correctly reflects WC patient case loads reported by the survey respondents. In contrast, it may be possible to check a state-based subset of the collected demographic data for accuracy and validity with data from other studies where this exists in an appropriate form^{10,11}, but this is beyond the scope of this paper.

The negative impact of using multiple mailing lists meant that a high number of duplicated surveys were sent to the same practitioner, a potential source of response bias, masking the calculation of the actual sample size and response rate. This was anticipated prior to distribution and unique identifying mail list codes were applied to correctly identify where distribution duplication occurred. Despite this strategy, until a national database of CM practitioners is established there will be no clear way to overcome this issue when undertaking national surveys.

Given the national aim of the survey study, it was also necessary to collect demographic information to contextualise the WC responses received due to the differences that exist between WC systems and associated legislated frameworks in the various states and territory, as they relate to CM and acupuncture as a treatment intervention. The survey also had a strong focus on CM practitioners' perceptions, involvement and opinions of the WC system (relevant to the state or territory in which their practice was located). The results of this study therefore represent opinions specific to this professional group and cannot be accurately extrapolated to other professional groups' experiences and perceptions of the WC system, but can, however, be used for comparative purposes.

Given the target population, there were no obvious implications of selection bias with the possible exception of limiting the survey distribution to only members of those organisations (CM professional associations and industry group) which we thought would reflect best the national membership of the CM profession. In relation to recall bias, people remember better their negative experiences¹²; and so the survey questions were designed as a series of open-ended questions to allow respondents to fully detail their experiences of the WC system, regardless of whether they were positive or negative. Yet there was still a notable leaning towards documenting more negative experiences and any future survey needs to include questions that specifically target positive experiences as well.

The last known national survey conducted on the CM profession¹⁰ is well over a decade old, a decade that has seen many changes to the CM professional landscape. Beyond a lapse in time, the Bensoussan and Meyers study was a broad-based review of the practice of CM within Australia and overseas; it was inclusive of all practitioners (such as physiotherapists, osteopaths, naturopaths, chiropractors, nurses and shiatsu therapists) and not necessarily restricted to those who identified with the CM profession alone. Therefore, a comparison of the demographic data could not be validly undertaken against population characteristics reported in their study and there is need for current data that better reflects the contemporary demographic characteristics of the national CM workforce. Their review additionally lacked any assessment of the relationship or involvement of CM practitioners in the treatment of WC patients, (if only because this was not an overriding priority or objective of their study). There was also no analysis or cross comparison undertaken to check the validity of the survey responses of the WC related data and, therefore, replication of the current survey study is required to be undertaken to verify findings in this respect.

CM PRACTITIONER INVOLVEMENT AND PERCEPTIONS OF THE WC SYSTEM

The survey was most interested in gaining an understanding of the respondents' involvement in the WC system and their perceptions of this system. As such, the results for this question were very surprising, given that only half of the respondents reported they had previously treated patients presenting with a WC claim. In contrast, other allied health professions (e.g., physiotherapists) actively target involved parties in the WC system to expand patient numbers, and it would be uncommon for only half of practitioners to report treatment of such patients (depending upon their state of practice).

Despite low numbers of respondents reporting treatment of patients in the WC system during the decade from 1970 to 1980 (largely reflecting the relatively small number of respondents who were in practice at this time and a lack of data), recent reported estimates by respondents show a consistent growth from 1999, with a significant doubling of WC patients treated in 2002. This increase occurred in spite of 90% of respondents indicating they did not actively attract WC patients to their practice.

Overall, the results showed one in two survey respondents had treated WC patients and the frequency of this has been consistently increasing over time. The continued attraction from WC patients to acupuncture appears to be beyond the practitioner's control and a result of external influences given the practitioner's lack of targeted marketing to this group. Whether this reflects greater acceptance of CM in society or not, or whether other factors are at work, is not known. Other factors may include an increasing number of CM graduates entering

the workforce and subsequently a greater availability of CM services to the public; the continued popularity of CM within the community¹³ and changes to the health care system;¹⁴ CM practitioners establishing/or working in partnership with CAM group practices and the subsequent increased frequency of inter-referrals; group practice opportunities with medical and/or allied health professions, resulting in more networking opportunities and direct referrals from GPs; and finally, injured workers themselves seeking out a viable physical therapy where conventional therapy and treatment approaches have failed to provide a desired treatment outcome or where conventional therapy is simply not their first treatment of choice. The degree to which these factors interact and impact is unknown and would also likely vary with respect to a practitioner's state of practice, age and level of education. The survey figures can be projected to predict a continual rise in the number and proportion of WC patients being treated by CM practitioners in the short to medium term.

Why do nine out of ten CM practitioners not actively seek WC patients? Could it be a simple knowledge deficit in this area hindering practitioners from seeking these patients, or could the perceived difficulties of the WC system be deterring practitioners instead? Other allied health professionals, including physiotherapists and chiropractors, actively seek work in this area, as demonstrated by WorkCover NSW spending \$54 742 000 during the 2004/05 financial period on these two therapies combined.¹⁵ The place of training would likely influence these figures as CM practitioners who undertook their primary training overseas were unlikely to have received training or education on the Australian healthcare system (including the WC system). Therefore, the lack of knowledge base may be hindering CM practitioners in actively pursuing patients in this area.

Extrinsic issues reported by respondents as inhibiting the referral of WC patients included perceived knowledge deficits in the broader healthcare system regarding acupuncture's scope of practice and its application to treat workers' injuries. This is likely further hindered by Australia's fragmented WC system and also accounts for the response theme variation received from practitioners from different states. CM practitioners also frequently reiterated a lack of referral from medical practitioners and allied health practitioners (e.g., physiotherapists and chiropractors). Lack of forthcoming referrals from allied health professionals is understandable (given their scope of practice crossover with CM practitioners) and competition factors are likely inhibiting referrals. Yet there are no such issues with medical practitioners and the lack of referrals is likely due to poor networks or poor knowledge of the CM practitioner's skill range and practice scope. In other instances, the lack of referrals stems from the exclusion of acupuncture or CM practitioners from respective state and territory WC

systems, where exclusion is often due to failure of relevant authorities to gazette acupuncture and CM practitioners within relevant legislation. The fragmentation of Australia's WC system additionally means there is no consistent direction or information on where and how to apply acupuncture for work-related injuries or even details on identifying a suitably qualified CM practitioner. Confusion results for all parties involved in the claims and injury management process, which only raises further ethical and legal issues.

Even with all the issues facing CM practitioners detailed above, and an apparent lack of active pursuit to target WC patients, results show two out of three CM practitioners would like to increase the number of WC patients treated in the future. Here, the major impediment for this to occur is again identified by respondents as a knowledge deficit.

DEMOGRAPHIC DATA AND PRACTITIONER PERCEPTIONS OF THE WC SYSTEM

While the survey was interested in practitioners' perceptions and engagement with the WC system, the respondents' demographic data was also collected. This was done to try to account for any variation in responses that might have occurred due to within-subject variability (such as individual clinical experience, years in practice and education) and which were not specific to the related WC system itself. Saying that, given the variations in the WC system within each Australian state and territory, there was always the chance that responses may vary between collective groups of practitioners but which were not reflected in all practitioners. While correlation analysis of the demographic data and the respondents' perceptions of the WC system were beyond the scope of the current article (and have been reserved for discussion in a subsequent paper), some relationship between these factors was noted in the reported results. In particular, a respondent's education, year of graduation, years in clinical practice and state of residence had some relationship to their perceptions of the WC system and these are discussed in further detail below.

Approximately 55% of respondents reported obtaining a bachelor degree qualification. This reflected the current minimum requirements for Australian primary qualifying courses in CM as recommended by the National Academic Standards Committee for Traditional Chinese Medicine⁷ and a relatively recent addition to the qualification framework for Chinese medicine. Given this, and the generally increased engagement of practitioners in treating patients with work-related injuries, as reported in the survey results, it is also possible that bachelor degree students were given greater levels of knowledge than occurred in 'older' degree pathways. For example, prior to the emergence of bachelor degree level programs in CM, there existed diploma and advanced

diploma qualifications. Given the related year of graduation of practitioners with a diploma it was also unlikely that the WC system was specifically discussed as a general part of professional practice issues in these courses and so diploma graduates' levels of knowledge would have been generally low when they graduated. However, their relatively low knowledge would have been countered by their greater clinical experience, with more years in practice than recent bachelor degree graduates, who are subsequently disadvantaged in the system by their limited clinical experience and limited referral networks that 'older' established practitioners have. This may account for some of the perceptions and discrepancies noted in the results. Yet, while it was anticipated that the increase in CAM acceptance⁵ as a legitimate treatment option for injuries would result in a response from course providers to increase the level of information on CAM integration into the broader health system (inclusive of the WC system), the overall feedback by respondents indicated that this was not the case. Further in-depth analysis is required of the data to determine whether a relationship exists (and the strength of this) between year of graduation, education undertaken and the level of WC knowledge reported.

In addition to the locality of practice, respondents were asked to indicate their type of practice. Many noted sole practice as their practice type. This was not an unexpected result given that acupuncture (when provided by CM practitioners) is not integrated into the public health system, which consequently eliminates an important potential source of employment for CM practitioners which other health professions in Australia are dependent upon. This also hinders networking opportunities for CM practitioners with other health professionals and limits an important source of referrals of WC patients.

A large proportion of respondents also reported practising with other CAM practitioners in group practice. This was also not surprising given that group practice can provide a supportive business network and additionally assists in abrogating the financial costs of running a practice. However, it remains unknown the proportion of CM practitioners who were operating as independent practitioners within a group practice setting or employed directly by the practice as an employee and whether 'practice type' had a relationship to WC knowledge levels and/or participation. Of most interest in the respondents' feedback on practice type was the number of practitioners who reported working in a group practice with GPs and allied health practitioners. A preliminary analysis of the data indicated that CM practitioners in multidisciplinary practices did report higher levels of WC patients than those respondents in sole practice.

In contextualising a respondent's perception of the WC system and in particular their level of involvement in

treating claimants in this context, it was of interest to gain an understanding of the respondent's practice scope and their main treatment modalities. That is, a respondent dependent solely on the use of herbal medicine was less likely to be involved in the WC system (due to the musculoskeletal basis of most injuries occurring to patients in this system), than a practitioner who used acupuncture and/or manual therapies, arguably a more appropriate treatment intervention. Given this, it was not surprising that the survey results showed 99% of the respondents indicated the use of acupuncture as one of their specialty treatment modalities.

Conclusion

CM practitioners in Australia have been engaging with the various state and territory WC systems for over 30 years, yet there remains an absence of statutory gazetting of CM practitioners as treatment providers. This raises several issues that range from the timely provision of treatment services by CM practitioners, reporting processes to insurance companies, the subsequent assessment structures of those insurers and the assessment of the appropriateness of the acupuncture treatment provided (as part of a scope of practice). These issues need to be prioritised and addressed in practical terms with the development of policy and protocols to assist the CM professions continuing engagement in the system.

While there was some variance in individual practitioner perceptions of the system, a common finding reported was an overall lack of knowledge about this system and this may account for some of the confusion and negativity reported in the survey results. This was primarily attributable to extrinsic factors related to the lack of statutory gazetting and subsequent paucity of resource development specific to the needs of the CM profession and levels of poor knowledge reported by respondents. However, the WC system cannot be blamed solely for this situation and the CM profession itself (both educators and associations alike) need to take some responsibility for informing practitioners about the system and how to successfully engage with it.

WC is clearly an untapped market sector for the CM profession, which is surprising given both the suitability of the CM profession's practice scope to address the physical nature of most work-based injuries and also for the opportunities it provides to develop inter-referral networks while supporting practice incomes. Even in the states and territories where CM practitioners are excluded, there remain options for them to engage with injured workers through the Commonwealth WC systems.

Overall the poor knowledge levels identified (in all relevant parties) has not hindered members of the CM profession from engaging with the WC system, with one in two respondents

reported having previously treated WC patients. Many also indicated they would like to continue treating WC patients and/or increase WC patient loads in the future. Accordingly, the WC authorities need to develop policy, guidelines and/or protocols for the use of acupuncture in work-related injuries, and in particular, gazette the inclusion of CM practitioners and their entire scope of practice (where appropriate), into their respective WC systems. This should be prioritised given the consistent growth in the proportion and frequency of treatment reported by respondents over the last several years, and this trend will likely continue given the respondents' plans to engage further with the WC system in the future.

Clinical Commentary

The use of acupuncture by the Chinese medicine (CM) profession within the Australian workers compensation (WC) system has been poorly recognised and poorly documented. Despite this, members of the public are seeking acupuncture for the treatment of their work injuries with one in two CM practitioners previously treating this group of patients. With 50% of workplace injuries resulting in sprains or strains, there is a large potential for CM clinicians to increase their current share of WC patients. Educators and professional associations need to develop resources for clinicians, WC authorities and industry stakeholders to assist in the effective management of injured workers.

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