

Survey of musculoskeletal injuries among massage therapists in Australia

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Introduction

Prevalence of musculoskeletal injuries is of great interest among manual therapists. While massage therapists strive to ease pain caused by work-related injuries, massage therapists themselves can be a victim of their work. Due to the physical demand nature of the work, massage therapists may have a high prevalence to musculoskeletal injuries. Despite posture education and warning on the use of thumbs in massage schools and textbooks (e.g. Riggs, 2007), anecdotal experiences have reported high thumbs problems among massage therapists.

In a survey conducted in Canada (502 respondents), Albert et al. (2008) found a high prevalence of musculoskeletal pain reporting to all areas of the upper extremity. Despite the majority of the respondents indicating they received proper training in therapy postures and self-care, there is still a high prevalence of injuries. The highest reporting of pain and discomfort was reported in the wrist and thumb (83%), followed by the lower back (65%), neck and shoulders (64%).

In a large survey conducted in Australian physiotherapists (961 respondents) McMahon et al. (2006) found that the prevalence of thumb problems in Australian physiotherapists is high, with a lifetime prevalence of thumb problems of 65% and current prevalence of 41%. Furthermore, from those who reported thumb problems, 19% had changed their area of practice and 4% had left the profession.

From a survey of 161 visually impaired massage practitioners in Taiwan, Jang et al. (2006) found that that 71% had at least one musculoskeletal problem in 12 months, with a prevalence of 50% on fingers or thumbs, followed by shoulder (32%), wrist (29%), neck (25%), arm or elbow (24%), forearm (20%), and back (19%).

In another study conducted in Canada, Buck et al. (2007) investigated the postural and low back demands of performing a standard 45-min massage and reported that the percent time spent in non-neutral wrist, shoulder and trunk postures were placing the therapists at risk for soft tissue injury. The authors also found that chair massage required more muscular activity of the upper extremity and non-neutral postures of the wrist and shoulders. The table massage placed greater demands on the trunk posture and musculature with similar non-neutral postures of the wrist. The authors reported that therapists adopted compromised trunk and wrist postures

that would increase the risk of upper extremity injury while using either the massage chair or table.

Following these reports, we conducted a survey to evaluate the prevalence of massage therapists to musculoskeletal injuries in Australia. This preliminary study can be a baseline for quantifying the prevalence of musculoskeletal injuring among therapists and can serve as warning.

The Survey

A survey was conducted on the web during August-December 2008:

<http://www.terrarosa.com.au/poll/index.htm> An invitation to participate on the survey was sent out by email to around 300 massage therapists every month from August to October 2007. Furthermore an ad was placed on the Massage Association of Australia in September and December 2007, courtesy of Jenny Millar of MAA.

The format of the survey follows that of Alberts et al. (2008). The survey contains 4 parts of questions: demography, education in posture and self-care, injuries due to work, and treatment to injuries. A descriptive analysis was used to find out the incidence of work related injuries (pain/ discomfort) on: lower back, shoulder, neck, and wrist/thumb, experienced by massage therapists.

Survey Results

Only 64 therapists responded the survey. While this is a low number of respondents, we believe this preliminary study will give indication of the prevalence of injuries and give warning to therapists. Although the main objective in this survey is on injuries due to work, the demography data can serve as information on massage therapists' population and work behavior.

There are four main parts of the survey, the results are summarized in Table 1 (demography), 2 (education in posture and self care), 3 (injuries/ pain encountered by therapists), and 4 (treatment of pain/ discomfort).

Demography

As shown in Table 1, the participants are mostly female (79%) with a range of age group. Most striking is that half is dominated by therapists greater than 40 years old. However half of the participants worked in the industry between 3-5 years. This indicated that most therapists have chosen massage later in their life, after having other careers previously. Only 13% of the therapists have worked more than 10 years in the industry. Most therapists worked only 10-20 hours per week. Population wise, mostly are from NSW followed by QLD and VIC. Most participants worked in the area of “remedial massage”.

Table 1. Demography of 64 survey participants

Age Group		
	Less than 30 years	17%
	31-40 years	33%
	41-50 years	27%
	Greater than 50 years	23%
Sex		
	Female	79%
	Male	21%
State/ Territory		
	NSW	31%
	Queensland	25%
	Victoria	19%
	Western Australia	11%
	South Australia	6%
	ACT	3%
	Northern Territory	3%
	Tasmania	1%
Years worked as Massage Therapist or Bodyworkers		
	0-2 years	20%
	3-5 years	50%
	5-10 years	17%
	11-20 years	8%
	Greater than 20 years	5%
Hours per week performing treatments		
	Less than 10 hours	20%
	10-20 hours	61%
	21-30 hours	16%

	Greater than 30 hours	3%
Modality		
	Remedial massage	42%
	Deep tissue, trigger points	24%
	Swedish, relaxation	14%
	Acupressure, Shiatsu, Reflexology	11%
	Myofascial release, Rolfing	6%
	Bowen therapy, Lymphatic drainage	3%

Education in posture and self care

Most participants are educated in self care or maintenance on their physical being (77%) and also in proper posture for conducting massage (70%). And 91% are currently involved in self care, mostly with stretching, exercise, and massage.

Table 2. Education in posture & Self Care among survey participants

Educated on Self-Care/Maintenance		
	Yes	77%
	No	23%
Received formal training in proper posture for massage		
	Yes	70%
	No	30%
Currently involved in a Self-care/ Maintenance		
	Yes	91%
	No	9%
Current Self-care		
	Stretching	38%
	Exercise	17%
	Massage Therapy	17%
	Yoga	13%
	Pilates	6%
	Tai Chi or Qi Gong	2%
	Meditation	3%
	Other	6%
Using massage aids to prevent injury		
	Yes	26%
	No	74%

Musculoskeletal Injuries/ pain due to working as massage therapists

Table 3 summarised the current status of injuries or pain or discomfort experienced by massage therapists. About 22% of therapists experienced pain in lower back and shoulder from daily to often (once a week). This is followed by neck pain (28%). Around 20% of therapists found that the pain on back, neck and shoulder has reduced their work. The highest injuries (as expected) is wrist and thumbs with 12% experience it daily and 31% weekly. 42% reported the pain has reduced their work. If we consider daily to weekly pain as a serious problem, the prevalence to wrist and thumb is 43%, and if we include “sometimes” frequency as chronic problem, the prevalence is 69%. The number is smaller compared to the survey done in Canada, where 83% reported pain on the wrist and thumb, 66% on the neck, 65% on lower back and 62% on shoulder.

Table 3. Injuries, pain or discomfort due to bodywork among participants

	Lower back Pain	Neck	Shoulder	Wrist & Thumb
Pain/ discomfort during or after work				
Daily	6%	14%	12%	12%
Often (at least once a week)	16%	14%	11%	31%
Sometimes	4%	31%	31%	26%
Rarely	3%	28%	23%	19%
Never	9%	12%	22%	11%
Has the pain reduced your work? (Y/N)				
Yes	17%	17%	20%	42%
No	83%	83%	80%	58%
Prevalence				
Serious (Daily – Often)	22%	28%	23%	43%
Chronic (Daily, Often, Sometimes)	26%	59%	54%	69%
Other Injuries				
Yes	16%			
No	84%			

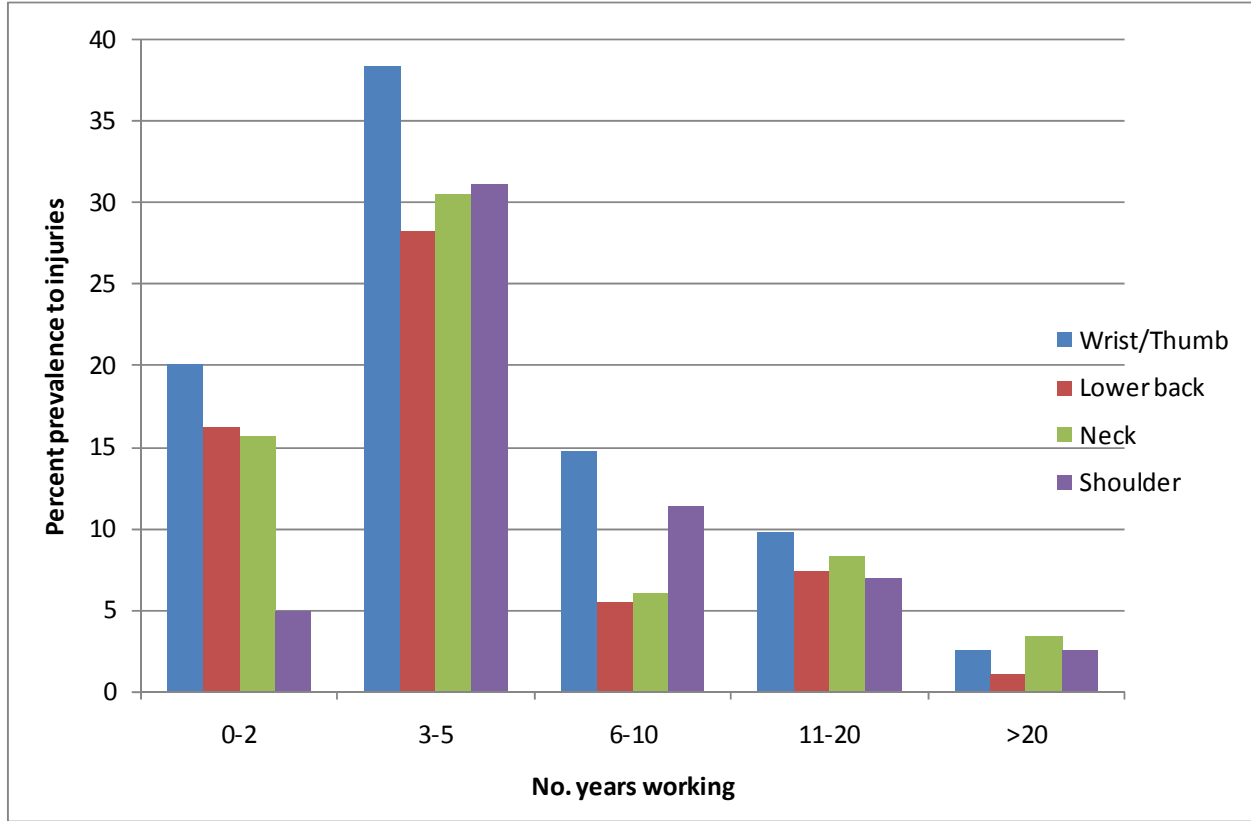


Figure 1 above shows the distribution of prevalence to injuries grouped as number of years working as massage therapists. Most reported injuries are reported in the group of 3-5 years working in the industry.

Treatment for injury and pain

34% of the respondents seek medical treatment for their pain and 59% use alternative therapies as treatment. Massage therapy and bodywork are the most popular form for therapists, followed by acupuncture and osteopathy, chiro and physio.

Table 4. Treatment for injury/ pain due to bodywork.

Seek for medical treatment for your injury or pain due to bodywork		
	Yes	34%
	No	66%
Seek for alternative medicine treatment		
	Yes	59%
	No	41%
Alternative treatment		
	Massage Therapy and other bodywork	56%
	Acupuncture/ TCM	31%
	Chiro/Osteopathy/Physio	18%
	Energy therapy	8%
	Yoga/ Pilates	5%
	Enar Therapy	5%

Conclusions

There appears to be a high prevalence to musculoskeletal injuries among massage therapists in Australia. Although the number of respondents is relatively small (64) we believe it is still relevant to the industry. Seventy percent of the respondents have received training regarding posture and self-care, and 90% are currently involved in self-care. Despite this, there is a high number reported pain in the wrist and thumb (69%), neck (59%), shoulder (54%) and lower back (26%). The most troublesome is in wrist and pain with 42% indicating daily to weekly pain and affecting their work.

The problem of thumb and wrist injuries among massage therapists is universal as observed in Canada (Albert et al., 2008), USA (Greene, 2005) and Taiwan (Jang et al., 2006). Although the number in wrists/thumb pain is lower than reported in Canada, it is in par with numbers reported for Australian physiotherapists (65%). This work does not infer any mechanism or source of pain/ injuries, but merely reports on the current status experienced by therapists. Although many books/ manuals, have stressed the importance of posture and body mechanics (Riggs, 2007), injuries due to compromised posture and overuse of thumbs are still problems. Many therapists are used to using thumbs to perform massage. This report serves as warning and reminder for therapists on good posture and avoiding extensive use of thumbs. Readers who wish to participate on the survey are invited to do it online at: <http://www.terrarosa.com.au/poll/index.htm>. More participants will definitely give a clearer picture on the overall status of work related injuries among massage therapists.

Acknowledgements

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