The Public's Attitudes, Knowledge And Perceptions Towards Osteopathic Medicine in Melbourne.

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ABSTRACT

Background: Little has been published about the patients who visit osteopathic physicians, their attitudes, perceptions, understanding and satisfaction with these health care providers.

Objectives: This study was developed to analyse the perceptions of a randomly selected sample of the general public of Melbourne, regarding their attitudes towards osteopathic medicine. The significance of this study was that it would lead to a greater understanding of how the osteopathic profession is perceived by the lay population.

Methods: Surveys were mailed to 1000 people across Melbourne with an invitation to participate in this study and provide data on their attitudes and perceptions towards osteopathic medicine. The returned surveys were analysed.

Results: Even though osteopaths were perceived to work almost exclusively with conditions or injuries of the musculoskeletal system, they were not the first point of call for patients experiencing low back pain. Although knowledge of osteopathy was limited, those who sought osteopathic treatment were highly satisfied with their treatments.

*Conclusions***:** The level of knowledge of the general public regarding osteopathy was limited, compared to other health professionals. Most respondents had positive, but diverse, attitudes and perceptions regarding osteopathy, and those who knew very little about osteopathy, were eager to learn more.

Keywords: Osteopathic physicians; osteopathic practise; lay population; attitudes; perceptions; satisfaction, musculoskeletal system.

INTRODUCTION

Australians have changed their attitudes over time, leading to an increase in use of complementary alternative medicine (CAM). In the past, the vast majority of Australians sought health care from one source, the general practitioner (GP).[1] A typical visit to the GP in the 1960's and 1970's consisted of an examination followed by a prescription, which was diligently taken by the patient without question.[1] However, in the early 1980s, Australians began changing their way of thinking about health and disease. Some attempted to treat their chronic health problems for which they seemed to be gaining no relief, others were worrying about the side-effects of the drugs they were prescribed. At the same time, people wanted to know more about their own health – increasingly they were asking questions. These changed attitudes led to the rise in the public's willingness to explore CAM, such as osteopathy.[1]

The public's willingness to explore CAM was evident in a New South Wales study which showed that public demand for these therapies was increasing.[2] It would not be unreasonable to extrapolate these results and conclude that this demand may be similarly increasing throughout Australia. This contention is supported by Pirotta et al. (2000) who found that, 59% of Victorian GPs reported that patient demand for complementary therapies was increasing.[3]

Since public demand is increasing, it is also important for the members of each therapeutic modality to recognise what the public thinks and expects of them. There is ample international research that each sector of the economy needs to regularly ask itself what are the public's expectations and how can these expectations best be met.[4] Any industry or profession that fails to acquaint themselves with the public's attitudes

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and perceptions regarding them, does so at its peril.[4] The CAM sector is no exception to this rule. In view of this relatively new and growing interest in CAM, it is imperative that the CAM practitioners know what the public thinks and expects of them. This information is vital, as it will help the practitioners within each CAM modality to better serve the public need.

Research in the area of public's perceptions and expectations has been done for a number of therapeutic modalities such as physiotherapy and complementary medicine. For example an Australian study explored the public's perception of physiotherapy.[5] They found that 96% of the public were aware of physiotherapy and familiarity was reasonably high. Physiotherapists were best known for their treatment of musculoskeletal conditions and there was very little awareness that physiotherapists provided specialist care for women and children. This study also explored reasons people used physiotherapy and the public's expectations of physiotherapists.[5]

Perceptions of orthodox and complementary medicine were examined in a later study.[6] Orthodox medicine was seen by all patients, as being more effective than complementary medicine in the treatment of major, life threatening conditions. Complementary medicine was seen as more effective in the treatment of chronic and minor conditions.[6]

An Australian study titled "Complementary and alternative medicine: the move into mainstream health care," looked at the public's perception of an alternative medical modality.[7] In this South Australian study the use of CAM was investigated under the

following subcategories: alternative medical systems, mind-body interventions, biologically-based therapies, manipulative and body-based therapies (such as osteopathy) and energy therapies. In total, they found a high degree of satisfaction with CAM treatment and practitioners, and consequently an increasing interest among practitioners.

Although past studies have explored public perceptions regarding complementary medicine as a whole, very few have examined public perceptions regarding osteopathy in particular. Australian studies in this area, are at best scant.

A British survey examined public awareness of osteopathy and found that friends, relatives and GPs play the leading parts in introducing osteopathy to the lay public.[8] Additionally, they found that GPs could be more supportive and the means of "word of mouth" through friends and relatives may not be the preferred first source of osteopathic exposure. Because of their relative lack of knowledge regarding osteopathy, the lay public may have, and thus propagate, erroneous or inaccurate perceptions regarding the services provided by osteopaths. Due to this being a problem in the United Kingdom (UK), Australian's lay public may also lack the knowledge regarding osteopathy and consequently have mistaken perceptions of this modality.

An American study examined not only perceptions of osteopathy, but also characteristics and satisfaction of patients receiving osteopathic care. Osteopathy was perceived to be beneficial for musculoskeletal disorders, as well as disorders

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involving internal organs such as lungs and stomach. The respondents stated the quality of healthcare offered by osteopaths was good to excellent.[9]

Some studies have explored the possible reasons why the general public have poor knowledge regarding complementary therapy, such as osteopathy.[9] This study suggested that patients, who had never visited an osteopathic physician or visited to a lesser extent, had less favourable and less accurate impressions of osteopathic medicine than those who had visited more frequently.

Although these studies examined public perceptions regarding osteopathy, the practice of osteopathy varies dramatically around the world,[10] therefore it is likely that the public perceptions regarding osteopathy will also vary from country to country. Osteopathy is far better established in the UK, as there are approximately 3700 registered osteopaths in the UK[11] (compared to only 835 osteopaths in Australia).[12] In America the graduating American osteopaths are awarded a doctor of osteopathy (DO). This means that they have full medical practice rights, therefore osteopathy in America is almost identical to orthodox medicine. In the UK the chiropractic profession was much slower to become established, giving osteopathy a considerable head start and a much higher profile (personal communication, Dr Brian Nicholls, past UK osteopath, 2006). This led to osteopaths being the referral point for GP's for their patients with musculoskeletal problems. In Australia, this is not the case, as osteopaths are solely manual therapists and aren't the main source of therapy for musculoskeletal complaints. It is clear from this that although research has been performed in the UK and America, it is unlikely to reflect the circumstances in

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Australia, therefore these differences call upon the need for studies of the public's perceptions towards Australian osteopathy.

The present study was designed to address the lack of information regarding the perceptions, attitudes and knowledge of the lay public regarding osteopathy. As an initial phase, the researchers chose to conduct a pilot study in Melbourne in order to explore the relevant issues as well as to develop an effective questionnaire which could then be used to survey the public at a national level.

METHODOLOGY

Participants

The target population for this study was the general public of Melbourne. The exclusion criteria were as follows: people aged under 18 years and all members of the medical and health professions. Excluding these groups from the study, meant that participants included had attained maturity, values and were of legal age, hence ensuring an accurate investigation of the lay public's attitudes, knowledge and perceptions towards osteopathic medicine. Participants who had received osteopathic treatment in the past were included in the study, as well as those who hadn't. These criteria yielded two distinct groups of respondents, those who had already sought osteopathic treatment and those who had not yet experienced osteopathic treatment, allowing for a comparison between the two groups.

A random sample of 1000 people across Melbourne was drawn from Melbourne's residential white pages telephone book.[13] This large sample size was chosen to decrease sampling error; for example when the sample size is increased from 400-1,000 respondents, the sampling error decreases from 5% to 3%.[14]

Of these 1000 people, 250 people were selected from the, northern, southern, eastern and western regions of Melbourne, in order to more accurately represent the typical socio-economic and cultural mix of people living in Melbourne. The Melbourne suburbs were derived from www.onlymelbourne.com.au, by clicking on "Melbourne's suburbs and municipalities." A list was then made of all the Melbourne suburbs. The Melbourne "Melways Street directory"[15] was then used to divide these suburbs into

the region they belong to, such as Mentone being a Southern region. This was derived from the opening pages of the melways and by following the scale of north, south, east and west. To ensure complete randomisation was carried out, the suburbs were then numbered and from this list, five suburbs were selected per region, using the randomisation function from a graphics calculator (Texas Instruments, T1-83). Fifty participants per suburb were then selected. This was carried out by selecting one participant for each suburb, per page of the White pages book.[13] This method yielded a group of potential participants with a random range of socio-economic, age, and gender characteristics.

Design

A recent Australian study[16] used postal surveys and obtained names and addresses of businesses through yellow pages online to investigate referral patterns of GPs towards complementary therapies. Furber's 2001 study also used postal surveys to explore the medical student's opinions on CAM and use of CAM practitioners.[2]

The reasons for selecting the postal survey method to collect data were multiple. Firstly, surveys were frequently used by similar studies in the past. Other reasons were as follows: postal surveys were low in cost, easy to implement and used more frequently for social research compared to telephone or face to face interviews.[14] They are also relatively non-intrusive, therefore allowing respondents the greatest control over the "interview."[17]

In order to improve the survey's return rate a number of design features were incorporated as advised by Mason et al. 2001. These included the use of green paper

for the surveys as it invokes a medical sentiment,[17] reply paid envelopes to improve return rates, the use of coding to protect the respondent's identity and a cover letter.

A 7-page survey was developed with questions derived from previous studies.[18,9,19,20,16,6] The criteria for question selection were that the questions needed to relate to a similar topic area and have similar objectives to those of the present study.

The first section of the survey aimed to obtain demographic information, including questions related to age, gender, country of birth, occupation and English speaking ability. This was followed by questions focusing on who uses osteopathy, concerns about osteopathy, knowledge of treatment techniques, eagerness to learn more about osteopathy and GP's influence on the lay public's perceptions. Participants were also questioned as to whether or not they had received osteopathic treatment, their reasons for doing so, and whether it was favourable and valuable. These questions addressed the main objectives of the study. Mainly closed questions were utilised, with some open questions, allowing participants to freely express their perceptions and attitudes. To maintain participant confidentiality, all participant names and addresses were alpha-numerically coded.

A copy of the survey is provided in Appendix B.

The survey was trialled on a sample of eight members of Melbourne's general public, using the same exclusion criteria as the main study. These participants included two people who were randomly selected from each geographic region of Melbourne (ie Northern, Eastern, Western and Southern), to closely foreshadow the study. This was done by selecting participants from the first page of the white pages book.[13]

Modifications to the survey were made in response to feedback from this pilot study – it was a validification process.

Materials

One thousand surveys with an attached cover letter outlining the purpose of the study and letter of invitation to participate were mailed out (refer to Appendix A).

Procedure

The study received ethics approval from Victoria University Human Research Ethics Committee. Each survey was mailed with a reply paid envelope to facilitate the return of completed survey and increase participant compliance.

Data Analysis

Descriptive statistics were used to characterise survey respondents and to summarise the results. Open questions were analysed and coded for common themes and "tick the box" responses analysed using percentages of responses.

To calculate associations between variables, a chi-square test derived from SPSS (Version 11.0) was employed.[21] A chi-square test for independence accounted for differences in frequency which existed across response categories. Results from one question obtained from the chi square analysis were insignificant, as $p > 0.05$ and the other question requiring chi square analysis were significant, as $p < 0.05$.

RESULTS

PART 1

Demographic Data

Of the 159 respondents, 79 were male and 80 were female, yielding an even distribution of genders. Forty six were from the Southern suburbs, 42 from the Western, 36 from the Eastern and 35 from the Northern suburbs. The majority of the participants were in paid employment (68%), 2% were unemployed, 24% had retired, 3% were disabled or ill and 3% were studying or training. Participants were most commonly in the 42-49year age range (20%), followed by 50-57years (16%) and the lowest age group were 82+ (4%) (refer to Figure 1). Seventy nine percent of participants were born in Australia and the remaining 21% originated from other countries, most commonly UK and Europe. The majority of participants (96%) spoke and understood English well, as they responded "good" to the question "how well do you speak and understand English" (refer to Appendix C).
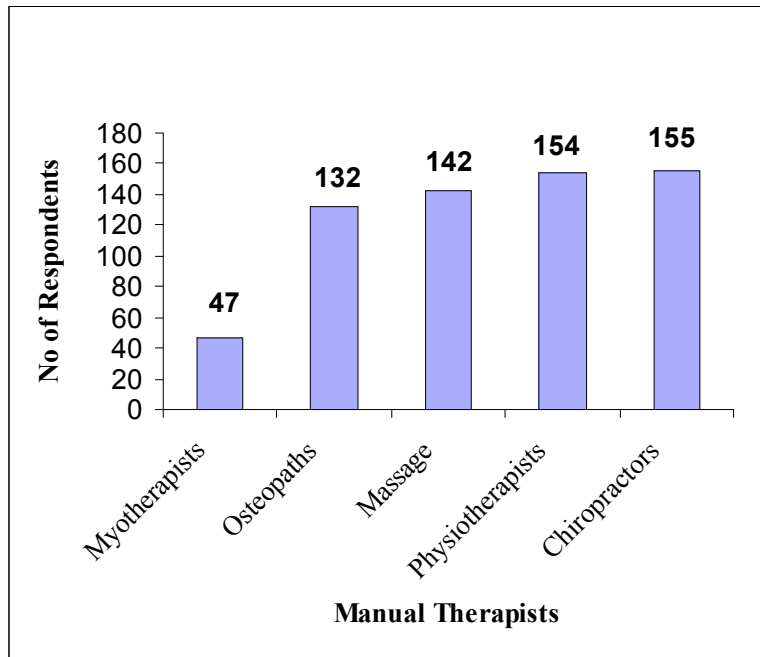
Figure 1: Age Distribution of Sample Population
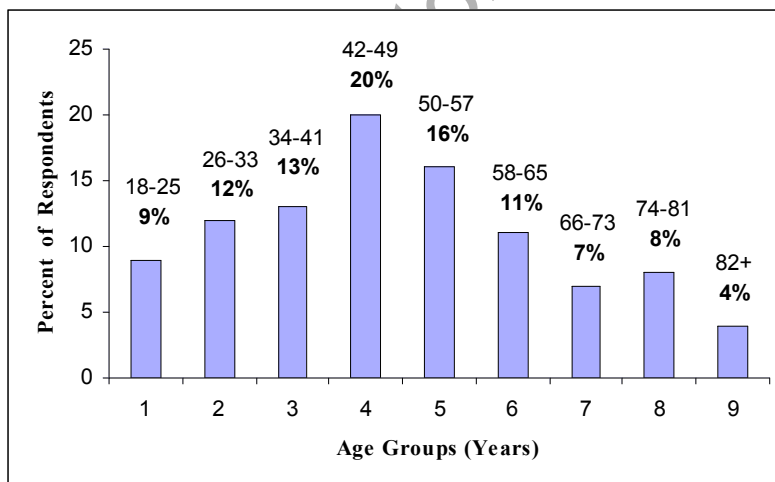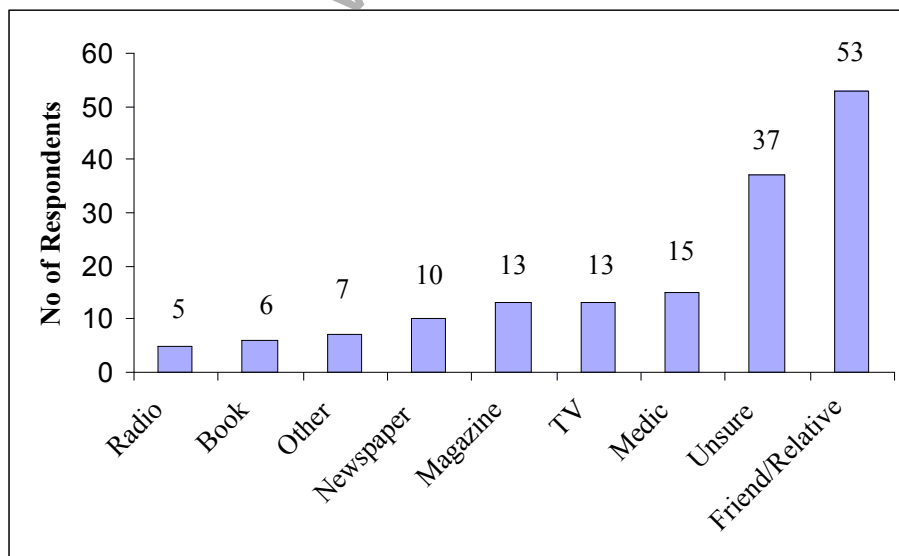
PART 2

Awareness & Source Of Information Regarding Osteopathy

Figure 2: Which of the following professions have you heard of? (Survey Question 1)

* Participant sample may have ticked more than one box

Figure 3: How did you first hear about osteopathy? (Survey Question 2)

Knowledge of Osteopathy and other Professions

Table 1: The lay public's level of knowledge of osteopathy and other manual therapies (Survey Question 11)

Therapy	Very Good	Average	Limited	None
Physiotherapy	30%	53%	17%	0%
Massage	25%	43%	26%	6%
Chiropractic	21%	55%	22%	2%
Osteopathy	**5%**	**18%**	**58%**	**19%**
Myotherapy	3%	4%	25%	68%

Of those participants who have a very good knowledge of osteopathy, 25% had been treated by an osteopath. Respondents who had limited knowledge, hadn't received an osteopathic treatment.

Figure 4: Knowledge of osteopathy by those who have and haven't received osteopathic treatment
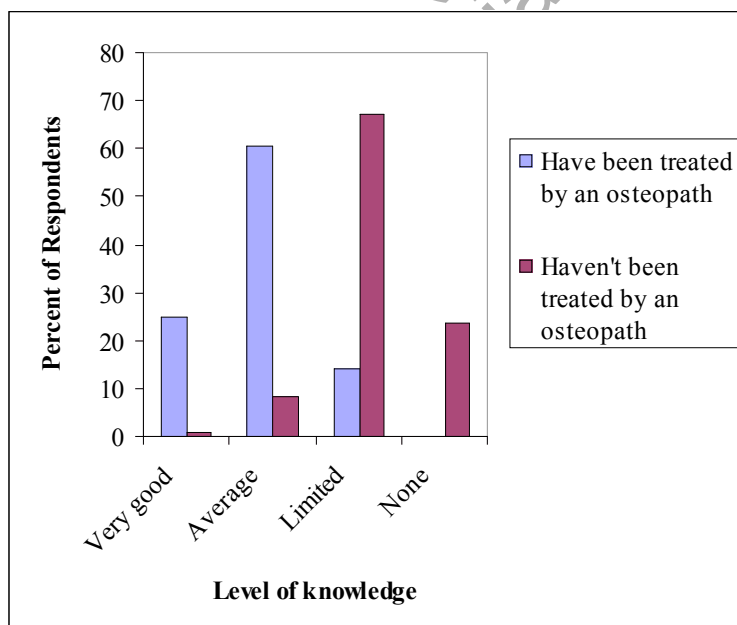
Chi Square Analysis: **Comparing knowledge of osteopathy by those who have and haven't received osteopathic treatment (Survey Questions 3 & 11)**

The chi square statement was $\chi^2 = (3, 159)\ 80.568, p = 0.000$), although one of the main assumptions of chi-square was violated, as the minimum expected count was 1.41. Even though a significant result was achieved for this question, due to our low sample size, the result is inconclusive.

Patient Satisfaction of Osteopathic Treatment(s)

Figure 5: In general, how would you rate your osteopathic treatment(s)? (Survey Question 4)
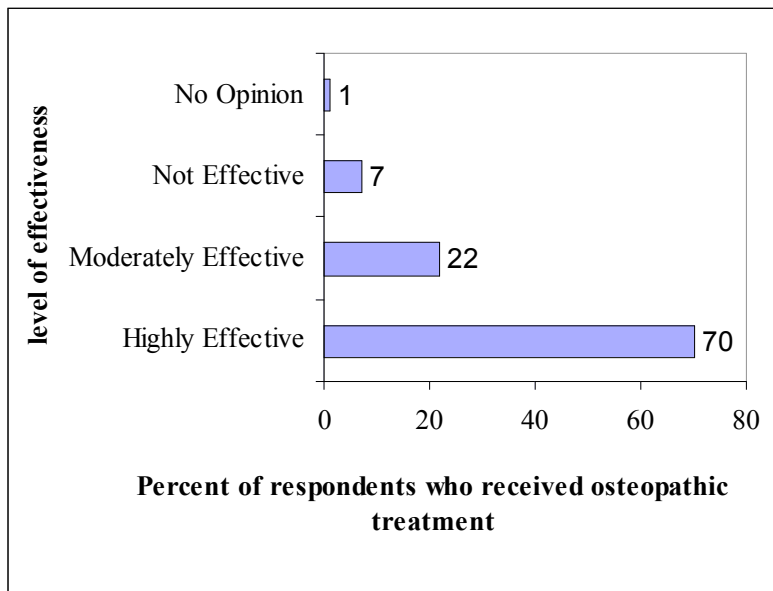
Issues between Doctor and Osteopathic Patient

**Figure 6: What is your medical doctor's attitude towards Osteopathy?
(Survey Question 17)**

**Figure 7: Why did you not inform your medical doctor that you see an
Osteopath? (Survey Question 19)**

Figure 8: If you were to experience low back pain, who would you see for treatment? (Survey Question 15)
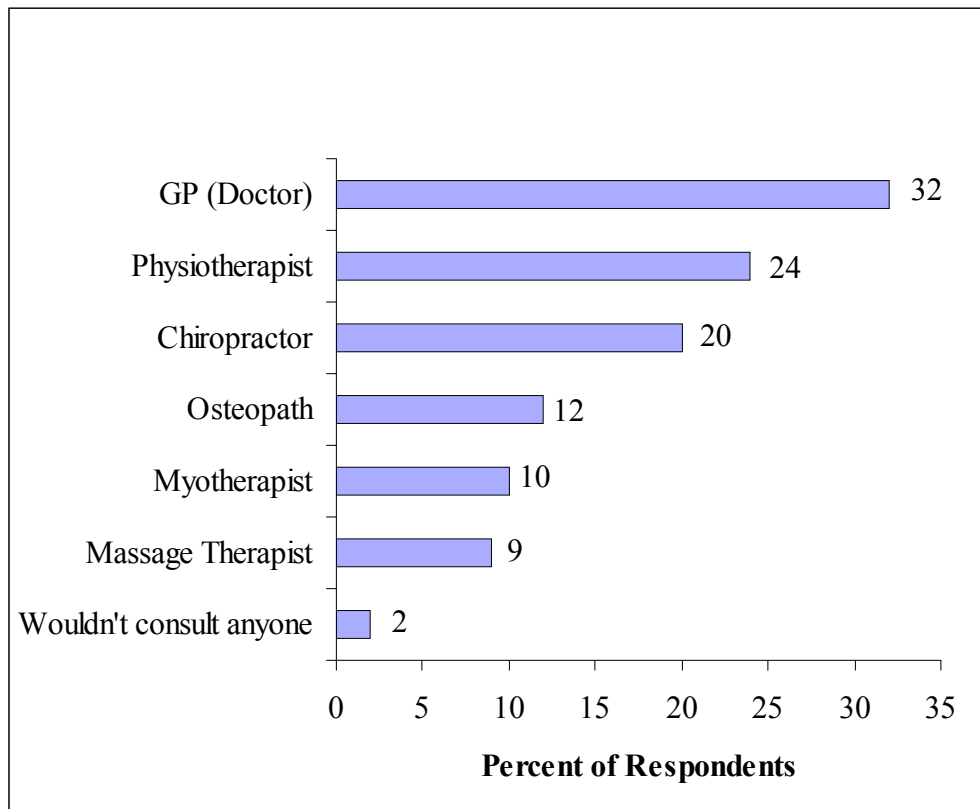
* Participant sample may have ticked more than one box

Table 2: Conditions most commonly thought to be treated by Osteopaths (n=159)
       (Survey Question 6)

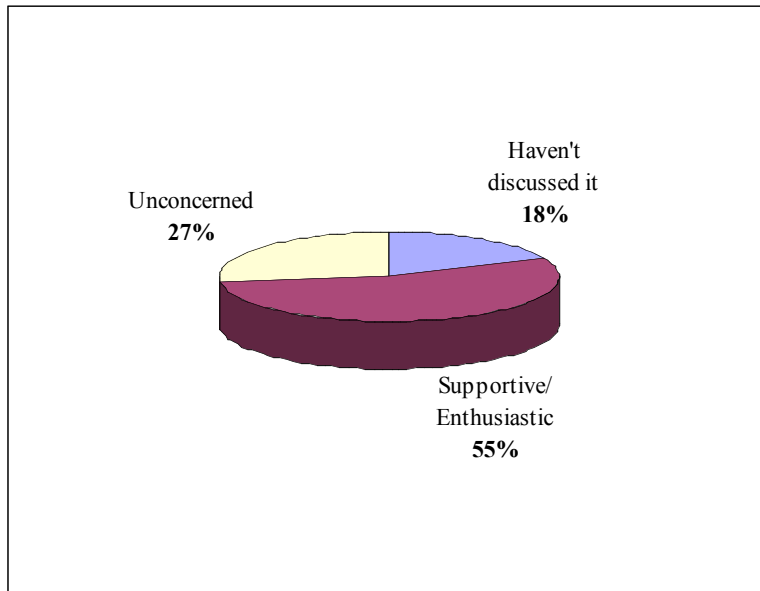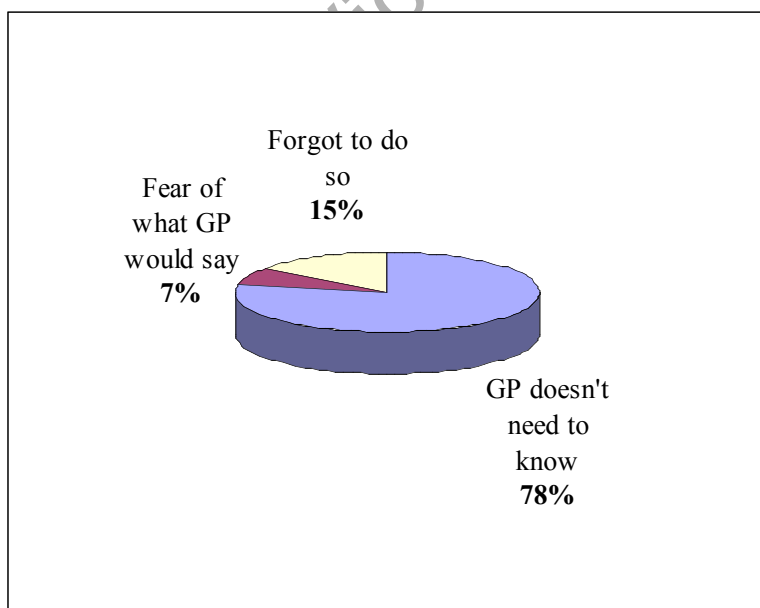| Conditions	Percent of Respondents
Back pain	13
Neck pain	12
Lower Back Pain	12
Joint Pain	11
Arm or leg pain	11
Whiplash	8
Sports Injury	8
Arthritis	6
Headache/Migraine	5
Muscle Pain	5
Aches and pains during pregnancy	2
Abdominal pain	2
Menstrual pain	1
Asthma	1
Constipation	1
Colic in babies	1

* Participant sample may have ticked more than one box
* Participant sample includes both groups who have and haven't sought osteopathic treatment

Table 3: Types of treatment that patients receive from Osteopaths.
       (Survey Question 8)

Treatment	Percent of Respondents
Treatment of bones and joints	23
Massage	16
Stretching	15
Manipulation (cracking)	14
Treatment of muscles	13
Counselling	4
Ultrasound	3
Stretching internal organs	3
Lymphatic (fluid) drainage	2
Water Therapy	2
Surgery	2
Pilates	1
Needling (use of needles)	1
Other	1

* Participant sample may have ticked more than one box
* Participant sample includes both groups who have and haven't sought osteopathic treatment

Table 4: The perception of average cost for a thirty minute osteopathic consultation (Survey Question 14)

Cost ($)	Percent of Respondents, who stated cost to be fair (%)	Percent of Respondents who stated cost to be excessive (%)
20-40	25	2
40-60	45	9
60-80	7	7
80+	1	4

* Thirty minutes was selected as it was the most common consultation time, stated by Debbie Harrison Secretary to Executive Director AOA, 2001

Figure 9: Concerns about seeing an Osteopath (Survey Question 13)
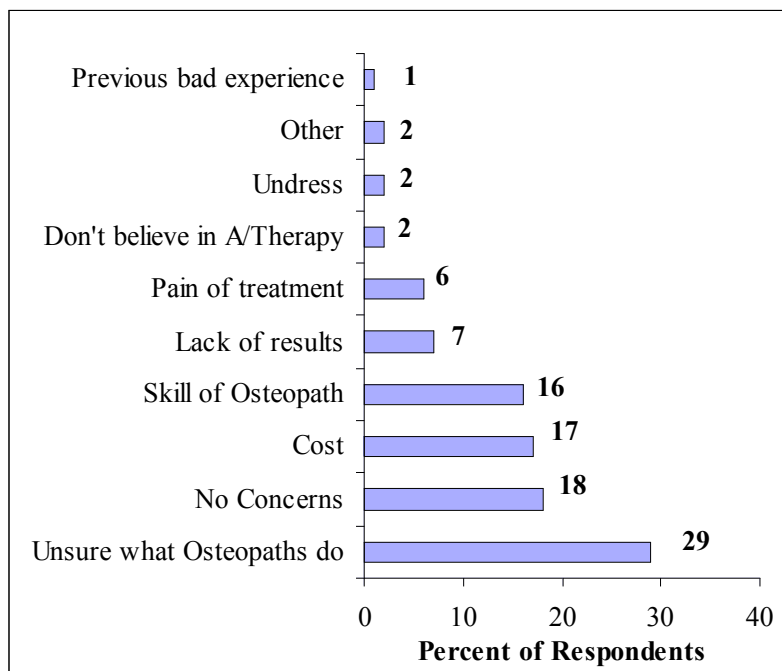
* Participant sample may have ticked more than one box
* Participant sample includes both groups who have and haven't sought osteopathic treatment

<u>Wanting to learn more about osteopathy and ways to do so</u>

Figure 10: Would you like to learn more about Osteopathy? (Survey Question 9)
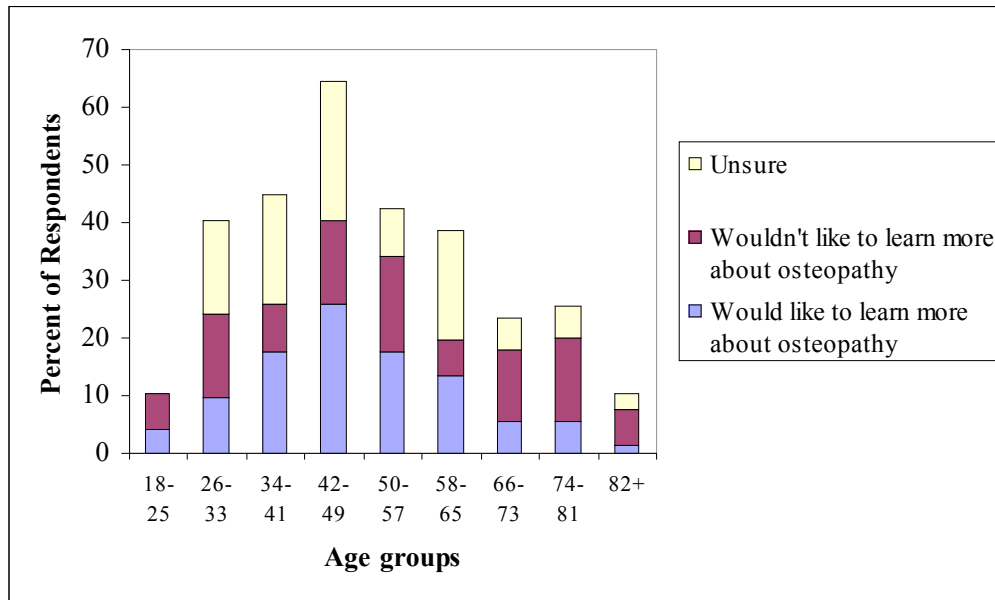
<u>**Chi Square Analysis**</u>**: Comparing treated participants willingness to learn more about osteopathy to those who haven't received osteopathic treatment (derived from Survey Questions 3 & 9)**

Analysis via the chi-square test, revealed an insignificant result, with a significance level well above the alpha level, $\chi^2 = (16, 159)$ 19.439, p = 0.247). The minimum expected frequency was 1.16, being less than 5, indicating that one of the main assumptions of chi-square was violated.

Figure 11: In your opinion, what do you think would be the best way to learn more about osteopathy? (Survey Question 10)
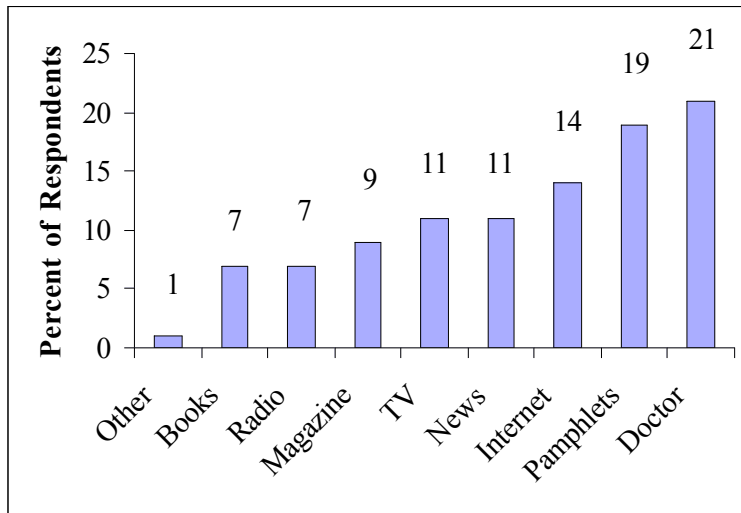
DISCUSSION

Due to such a low response rate (15%), the statistical differences found, were inconclusive, serving as a major limitation in this study. As a result a low response rate means that we can't be certain that the differences found are real, even though they have been commented on (refer to parts of the discussion, limitation and conclusion sections for further discourse on this issue).

Demographics

The majority of participants (96%) spoke and understood English competently, as they responded "good" to the question on "how well you speak and understand English?" However this result is ambiguous, as it highlights the participant's individual perceptions of their strengths in English rather than the actual standard reached. The purpose in raising this question was to ascertain whether or not the respondent had sufficient command of the language to answer the question. Future studies may find a more reliable way to gather information from participants and limit the chances of error. Given that the survey was written in English, meant that participants with English as a second language were excluded from completing the survey, decreasing the return rate, and adding a bias to the results.

Of the sample population, 79% were born in Australia. This was consistent with the 2001 Census data, which showed that 13,629,685 people (72.6%) stated they were Australian-born.[22] The remaining 21% originated from other countries, clearly

representing the multicultural mix of the Australian population. Our results showed that a reasonably accurate sample of the general public was achieved.

Knowledge of Osteopathy & other Professions

The lay public surveyed, indicated that they had a greater knowledge of physiotherapists and chiropractors, followed by massage therapists, compared to osteopathy and myotherapy (refer to Table 1). Due to the results which show that physiotherapists and chiropractors are more recognised within the medical system, the lay population are more knowledgeable about them.[5,23,24] Differences in knowledge of these therapies may be attributed to the fact that there are a greater total number of practitioners of physiotherapy and massage therapy, compared to limited numbers of osteopaths,[5,12] for there are 2508 physiotherapists, 1016 chiropractors, 1259 massage therapists and 835 osteopaths.[12,22] Due to this larger number of practising physiotherapists in Australia, there is greater public exposure of this profession. This suggests that exposure to a treatment modality has a positive impact on an individual's knowledge of that profession. For example, patients come in contact with the practitioner, they then become familiar with the treatment and principles behind that form of manual therapy. Another reason for better knowledge of physiotherapists, compared to other professions is evident in an Australian study, investigating the public perceptions of physiotherapy and implications for marketing.[5] It became apparent that advertising did raise awareness of physiotherapy, however the primary method of selection of a physiotherapist, was due to doctor's referral. Doctors were

found to be crucial for referral and communication about physiotherapy and marketing was used to inform doctors about what physiotherapy had to offer.

Future research needs to be employed to compare the advertising and marketing campaigns of the osteopathic and chiropractic profession, as well as investigating the funding schemes from both boards. These may account for the differences between these professions in the public's knowledge, for even though numbers are quite evenly matched between practising osteopaths and chiropractors, the public still had better knowledge about chiropractors over osteopaths (refer to Table 1).

Levels of knowledge were further examined, comparing those respondents who had received osteopathic treatment, to those who hadn't (refer to Figure 4). Licciardone et al. (2001), suggested that patients who had never visited an osteopathic physician, had less favourable and less accurate impressions of osteopathy, than those who had seen an osteopath.[9] This finding was strongly mirrored in our study, as there was a significant difference found between groups, with regards to the level of knowledge of osteopathy, (p value < 0.05). The results indicated that 25% of the public who had been treated by osteopaths, had very good to average knowledge of this profession, whereas those who hadn't been treated by an osteopath, had limited or no knowledge (refer to Figure 4). These results reveal that one of the ways by which the public gains knowledge about a profession, is through consulting its practitioners. This suggests that the lay population need to be treated by an osteopath to gain greater knowledge. An effective way to increase the public's knowledge may be to offer a discounted or free first osteopathic treatment. This would introduce the profession to the patient, thus allowing for improved perception and understanding. Future studies could

investigate reasons why those participants hadn't sought osteopathic treatment, whether or not it was because they sought other forms of therapy or whether they didn't require manual treatment. Refining the survey could better explain the results received, simply by asking a question such as "Have you ever had a musculoskeletal injury that required treatment?" or "Do you have an injury that is treated by other forms of therapy, instead of osteopathy?" This would then clearly reveal why participants hadn't sought osteopathic treatment.

Those respondents who indicated knowledge of osteopathy, were further questioned to determine the sources of this knowledge. Family and friends, newspapers, magazines and information from the osteopath remain the main sources of information for respondents. The knowledge they displayed is influenced by the level of osteopathic awareness, for the more aware the public are of a modality, the more knowledge they have about it. The main source of awareness was "word of mouth" through family and friends (refer to Figure 3). These results indicate that other media such as radio, television and newspapers are available resources that aren't being effectively utilised, therefore could be more effectively focused on to inform the public. Osteopathic professional associations could become more involved, as their objectives are to promote, develop, protect and establish the study, knowledge, philosophy and practice of osteopathy.[25]

Even those participants who had seen an osteopath reported having only "some" understanding of the conditions treated and techniques used by osteopaths (refer to Appendix A, Question 11). This may indicate that the practitioners themselves are perhaps not sufficiently educating their patients regarding what osteopathy can do for

them. Osteopaths may only ever talk about very specific things like their patient's current condition (e.g. sore back), therefore the patient may not be informed regarding other conditions that are easily treated.

There were also participants who considered they would never need osteopathy, which may indicate that the respondents were truthfully unaware of an osteopath's ability to treat a variety of dysfunctions (refer to Appendix C, Question 9). Informing people regarding the scope of osteopathic treatment can be achieved through practitioners talking to their patients, or even outside the treatment room, with informative pamphlets, posters and videos in the waiting room. An informative advertising program would have to be employed to reach participants who didn't receive osteopathic treatments. Osteopathy awareness week activities are a good example of this.

Perceptions of Osteopathy

The public's perceptions of osteopathy were partly explored when participants were questioned, "If you were to experience low back pain (LBP), who would you seek treatment from?" GPs achieved the highest results (32%), followed by physiotherapists (24%) and chiropractors (20%). A smaller 12% sought osteopathic care for their LBP (refer to Figure 8). The difference in results among these modalities, may mean that the lay public lack knowledge of and contact with the osteopathic profession and wouldn't be amenable to treatment from this source. (refer to Figures 3 & 5, Table 1). From these results the public appear to have most trust in their doctor, therefore believing that their LBP would benefit most from first

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consulting their doctor. This was supported when participants were further questioned "Specify why you chose this professional for your LBP." Participant's justifications for selecting their GP for the treatment of their LBP were, access to initial diagnosis, perceptions of GPs being primary health care providers, (compared to osteopaths) and the GP's ability to refer to related medical services (refer to Appendix C). From this research it is evident that the lay public seek GPs for initial contact and from then GPs refer to physiotherapists, therefore it is understandable that the lay public have better perceptions of the physiotherapy profession.[2,19,23]

There were low responses to the question about LBP. Of those results, it showed that the public have most trust in their GP, therefore considering the GP's knowledge of alternative therapies may have an impact on the patient's preparedness to seek alternative therapies. For example osteopaths weren't as commonly sought for LBP, like chiropractors and physiotherapists, which may reflect the GP's knowledge of these professions. This was explored in a recent study, by William et al. (2003), who investigated referral patterns of GPs in regional Victoria and found that 97% of GPs had extensive to average knowledge of physiotherapy, compared to 71% for chiropractic and 31% for osteopathy.[16] This is largely consistent with findings from overseas studies of medical practitioners.[18,19]

Therefore, investigating both the lay public's and their GP's perceptions towards osteopathy, may be a major factor of the patient's knowledge of that profession. Many participants justified seeking GP over osteopaths, because they perceived only GPs, to have that status of primary health care providers (refer to Appendix C). The lack of knowledge of what osteopaths are capable of treating indicates a need for the public to

be educated regarding the clinical scope and efficacy of this modality. More information and explanation from health professionals on health issues, may be necessary to assist with the public's understanding of the philosophy and methodology underlying different health professions. This would, no doubt ensure that the lay public are better informed of their choices and expectations of various health issues. Those who consulted an osteopath for treatment of their LBP (12%), commented that this was because they had used them in the past, found them to be gentle and holistic and believed in their principles (refer to Appendix C). This demonstrated that if every patient had either consulted an osteopath in the past or believed in their principles, they would certainly consult an osteopath first to treat their LBP. This was supported when asked "why did you first choose to see an osteopath?" as 56% of the public who responded, had heard that osteopathy was very effective. The idea of what therapy approach patients prefer, was not explored, however it would be interesting to know, from the 12% who consulted an osteopath for their LBP, what percentage of participants chose osteopathy as a personal preference?

Dr A.T. Still (founder of osteopathy) coined the term "osteopathy" from the two words "osteon" meaning bones and "pathos" meaning to suffer.[26] Given this term, the lay public may assume osteopaths treat bone conditions, which is reason for a high response in seeking treatment for musculoskeletal conditions and a low response for the non - musculoskeletal conditions (refer to Table 2). The results were similar to past studies, as the public believed that osteopaths were perceived to work almost exclusively with conditions or injuries of the musculoskeletal system, such as back, neck and low back pain, as well as arm / leg or joint pain.[27,8,9,24] Non-musculoskeletal

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conditions, such as constipation, menstrual pain, asthma and colic all achieved a small score of 1% (refer to Table 2). Historically osteopaths may have treated musculoskeletal complaints, however the present osteopathic profession have a growing focus towards treating a more broad range of complaints, including the less obvious conditions.[27] Since CAM is a growing area of interest, it's inevitable, that the public may become more in tuned[7,22] with what these professions have to offer. The diversity that osteopathy has to offer isn't recognised to be within osteopathy's capability, therefore the public need to be educated, to gain the full benefits of the osteopathic profession. As a result, the Australian osteopathic representative bodies need to further implement advertising and education programmes, regarding what osteopaths can treat and target this information to the lay public of Melbourne. This will improve the struggle with osteopathic identity and widen the scope of treatment made recognisable to the public.

The public's perceptions of osteopathy were also explored through questioning them about "what types of treatments do you think patients receive from osteopaths?" something that hasn't been asked in any of the surveys published to date. The participants correctly identified that osteopath's employ "cracking" (high velocity low amplitude), "stretching" (lengthening of muscles) and "massage" (soft tissue), however they were not aware of the wide variety use of treatment techniques, such as lymphatic drainage and stretching of internal organs (visceral). Interestingly, a small percentage stated that osteopaths perform ultrasound, water therapy, and surgery (refer to Table 3). The 2% who selected surgery as a treatment modality, may have been thinking of Doctor of Osteopathy (DO), which is the form of osteopathy practised as qualified doctors / surgeons in the USA.[10] The lay public may not

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recognise the differences between osteopathy in Australia and USA and this could have been clearer in the format of the questions, for example the question could have addressed specifically treatments in Australia. A more likely explanation for the public's perceptions of techniques used is due to respondents confusing osteopaths with other therapists such as physiotherapists (ultrasound) and orthopaedists (surgery). This possibility is supported by the results which showed that 29% of the participants were "unsure of what osteopaths do" (refer to Figure 9). It is difficult to know what the participant's reasons were for selecting osteopathic treatment, as the current survey lacked the question "why do you select this particular modality?"

The survey also explored the public's perceptions regarding the qualification of osteopaths. Participants were asked "do you think that osteopaths have to be government registered before they are allowed to practice?" Eighty eight percent replied "yes" and 12% replied "no." These results indicate that the registration of osteopaths appeared to be widely perceived by the majority. This is consistent with the British survey (2001) that also investigated the public's perception of the registration requirement for osteopaths. This UK study found that the registration of osteopaths was widely appreciated, especially when the public had direct contact with an osteopath.

Awareness of Osteopathic Profession

Osteopathy shares the average, middle level of awareness, alongside massage therapy, with physiotherapy and chiropractic, sharing greater awareness (refer to Figure 2). Osteopathy, (being a form of CAM) is a relatively new profession and continually on

the rise as the past decade has seen a dramatic increase in the reported use of non-orthodox or complementary therapies.[3] This means an increase in the usage of the osteopathic profession, correlates to an increase in awareness in the future.

Although the chiropractic profession originated at the same time as osteopathy in 1840,[10,28] it has a higher awareness among the lay population. Results from the question "Which of the following have you heard of?" showed the highest level of awareness with chiropractors, physiotherapists, followed by massage therapists, then osteopaths and lastly myotherapists. This may, in part, be explained by the fact that there are more practising chiropractors, compared to osteopaths.[22] Of the 159 participants, 132 had heard about osteopathy, compared to the 155 who had heard about chiropractics (refer to Figure 2). This minor statistical difference, between chiropractors and osteopaths is difficult to meaningfully compare, given the small sample size. Future studies should aim to increase the sample size and investigate where the difference in awareness lies, whether it is related to advertising and funds spent on each profession, or whether its patient satisfaction, referral rates or dissemination of information.

Means of osteopathic awareness were also investigated and compared to past studies. In agreement with the British public awareness survey of osteopathy[8] we found that family and friends play a lead part in providing an introduction to osteopathy through "word of mouth" (refer to Figure 3). This may prevent the public from possessing an objective knowledge of osteopathy and its benefits, for "word of mouth" allows for transmission of subjective information which may be inaccurate.

As the osteopathic profession is not widely advertised, it is difficult to determine how effective this means of advertisement would be. We can then only comment on past and current literature which shows "word of mouth" to be highly effective.[8,24] Further research could investigate various means of advertising for osteopathy and examining the results.

Small percentages of participants stated that they first heard about osteopathy through television, radio or magazines (refer to Figure 3). This only accounts for a small portion (thirty one participants), signifying that the amount of osteopathic advertising is minimal, mainly occurring during osteopathy awareness week.

<u>Issues between Doctor and Osteopathic Patient</u>

While studies have highlighted what GPs think of CAM, this study further explores the issue, by investigating GP's influences on patient perceptions. A 2001 British survey probed respondents to identify what they believed to be their GP's attitudes towards osteopathy. The majority did not know (or had not discussed) the subject with their GP's, but of those who had, 33% felt that he or she was supportive. In comparison to this current study, a similar 55% of Melbourne's lay public felt that their GP was supportive / enthusiastic (refer to Figure 6). The differences between current and past British study, may be due to more recent trends, as GPs may have changed their views on osteopathy or simply the fact that the population sample were different, when comparing Britain to Australia (Melbourne).

Studies have reported that more than half CAM users did not inform their doctor they are using CAM.[2] This was mirrored in the current study, as a small number of respondents hadn't discussed their osteopathic treatments with their GP. When questioned as to why this was the case, 78% stated that the GP didn't need to know (refer to Figure 7). This could imply that the public don't find it useful sharing information with their GP, or perhaps they don't want to upset their GP. Withholding such information however, could possibly have a detrimental effect on the patient's health. In the future it may be considered a doctor's duty of care to ask all patients if they are using CAM, such as osteopathy or similarly become compulsory for patients to disclose such information. A reason why this hasn't already taken place is because raising this topic with a patient, results in the doctor having to advise their patient on the efficacy of the therapy, which could be difficult as the research on the effectiveness or harmfulness of CAM is scant.[2] Also with community acceptance and use of CAM on the increase, medical students' limited knowledge about CAM raises important issues for teachers and curriculum designers.[2] In the future, all medical students will be treating patients who use CAM, therefore medical curricula should assist students to relate effectively with patients about the value of these therapies. Further research in this area needs to be carried out, for more conclusive results.

Patient Satisfaction

Satisfaction of an osteopathic treatment, may influence the patient's perceptions and attitudes towards it. For example an increase in patient satisfaction, means that they are more likely to return to that profession and gain greater opportunity to develop positive perceptions and attitudes. An American survey[9] investigated patient

satisfaction in patients receiving ambulatory healthcare from osteopathic physicians and found that in general, respondents were satisfied with most aspects of their health care, mostly their provider's respectfulness, courteousness and overall performance. The current survey focused on investigating the effectiveness of the osteopathic treatment only. Our results correlated directly with the American study, indicating a high degree of satisfaction with osteopathic treatment, as 70% of respondents reported their osteopathic treatment to be highly effective (refer to Figure 5).

Cost of Osteopathic Treatment

Another aspect contributing to perceptions and satisfaction with osteopathic medicine, is the public's perception of cost of osteopathic treatment. The cost of an osteopathic treatment varies depending on the location of the practice, experience of the osteopath, duration of the consultation and whether it's an initial or subsequent consultation. The relevant survey question asked "what do you think is the average cost for a thirty minute osteopathic consultation?" More than half of the respondents (54%) said that the average cost for an osteopathic consultation in Melbourne would be $40-$60 (refer to Table 4). This value is almost accurate for the schedule of fees from the AOA has stated that the cost of a subsequent osteopathic consultation of 30 minutes is $80 (Debbie Harrison Secretary to Executive Director AOA 2001). Despite these fees suggested by the AOA, each individual osteopath charges their own fee per consultation, which may explain the varied perceptions of cost by the public. An additional question was asked "Do you think the cost you chose, is fair or excessive?" Forty five percent felt $40-$60 was a fair average price for an osteopathic treatment (refer to Table 4), suggesting that cost isn't a major factor in deterring the lay public

from getting osteopathic treatment. These results may suggest that the lay public feel that they are getting value for money, and osteopathic treatment is cost effective. Conversely, a recent English study,[29] found that patients agreed osteopathic manipulative treatment (OMT) to be lower in cost, compared to other forms of manual therapy and just as effective, therefore it was the impression of a low fee for treatment, which had an influence on the patient's decision to seek OMT.

Learning about Osteopathy

Taking the public's attitudes, knowledge and perceptions towards osteopathy into account, question 9 was asked "Would you like to learn more about osteopathy?" Due to an insignificant result, a future study should be undertaken with a larger sample size in order to gain a significant result to this question and notable conclusions of this issue.

The results indicated that respondents in their forties were the most receptive to learning more about osteopathy (refer to Figure 10). These results indicate that this cohort could be the key group to direct information / education campaigns towards. They are also within the age group who are more frequently consulting health professionals, therefore osteopathic treatments would benefit their health and well being.[22]

It was informative to investigate the preferred method for learning more about osteopathy. The most popular choices were their GP, internet and pamphlets (refer to Figure 11). Armed with this information, the organisations representing the

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osteopathic profession can use these methods, to inform the lay population about what osteopathy has to offer. Also most people responded to the "comments section" (refer to Appendix C) by saying that they want to know more about alternative medicine, such as osteopathy. A common theme found, was that the public wanted to understand how osteopathy fits into the medical system and in general, they feel they knew little about osteopathy.

LIMITATIONS

There were few limitations of the current study, which are worthy of noting, however the most significant was the low response rate.

Mail surveys commonly have response rates of 50-70%, with up to 90% in some cases.[17] A response rate of 70% is considered impressive for a mail survey, however more frequently, return rates are in the 20-50% range.[30] The 15% return rate in this current study was considered below average. This is a common negative effect, as samples drawn from the general population, have lower response rates.[14] It is difficult to appreciate why this negative effect exists among samples of general population. It may be that people lack knowledge, awareness or interest about osteopathy, so choose not to complete the survey, or feel that because they don't have any contact with osteopathy, it will be a waste of time to complete the survey.

A less significant limitation was that the majority of questions on the survey were closed questions, therefore the full scope of each factor that contributed to attitudes, knowledge and perceptions of osteopathic practice wasn't explored. This limitation was unforeseen, due to the "fact" that the selection choice of these types of questions was derived from previous studies. Improvements using open ended questions, as well as closed questions should occur in further research.

Also the respondents who were uninformed on the subject may have invented or guessed, rather than admitting that they did not know. Literature shows this "nonresponse bias" to be apparent in all surveys.[14]

Lastly, of the 1000 surveys that were sent, 155 were incomplete or unopened due to the addresses having moved. There were further surveys returned, due to 13 participants being deceased and 4 who didn't fit the inclusion criteria, as they were members of the medical profession, therefore there was a 15% return rate of surveys. Due to the white pages directory, being updated only once per year, a number of people had since moved from the indicated address, which may have partly accounted for a low response rate. This method for collecting data couldn't be changed, for other modes, such as telephone directories were also out-of date and didn't include those households without a phone. The number of people in this category, weren't an acceptable "loss" of potential data.

Future research can consider steps to enhance response rates on a mail survey.[17] An influencing factor, could be to avoid mailing near holidays (which wasn't considered in the current survey), for the people become preoccupied. Also mailing surveys early in the week, so people receive the survey on Wednesday, for mail arriving on Fridays or Mondays tends to get set aside by respondents. Another option is to offer an incentive to achieve a higher response rate. However the disadvantage to this, is the respondents are more likely to give inaccurate responses.[14]

A second mail out was not completed because literature reveals that second mail outs, don't necessarily increase response rates significantly and considering the extra time and finances that is put into them, aren't quality and cost effective.[14] No matter how carefully a sample is selected, some members of the sample simply do not respond to the survey questions.[14] The fact that respondents didn't respond to the surveys the first

time, means that the survey didn't mean anything to the person who received them, which isn't going to change with a second mail out.[14]

It is recommended that future research focuses on exploring a similar large group of Melbourne's lay population, however by this time; respondents may find osteopathy more relevant, therefore surveys are more likely to be returned. It is only then, can a more comprehensive and significant understanding be gained.

CONCLUSION

Even though we have commented on the results derived from this study, the low response rate achieved in this study, impacts on the strength of all the conclusions made. Consequently, we can't be certain that the differences found are real.

The general public of Melbourne perceives that osteopaths work almost exclusively with conditions or injuries of the musculoskeletal system, such as back, neck and low back pain. Even so osteopaths are not the first point of call for patients who experience LBP. The public's knowledge of osteopathy was limited, compared to physiotherapy and chiropractics. Those who had undergone osteopathic treatment were highly satisfied with their treatments. In general, there was a moderate level of willingness by the lay public to learn more about osteopathy.

Having researched the public's attitudes, knowledge and perceptions towards osteopathic medicine, means that osteopathy can be adequately recognised for how it contributes to the healthcare industry. It would be interesting for this study to be repeated on a public sample in five years time, with the low response rate addressed and modified, to ensure more significant results were achieved. As community acceptance and use of CAM, such as osteopathy, is increasing, changes in attitudes, knowledge and perception of the osteopathic profession would be expected to occur

ACKNOWLEDGEMENTS

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APPENDIX A - Information To Participants

Victoria University of Technology
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Australia

City Flinders Campus
School of Health Sciences
4th Floor
301 Flinders Lane
Melbourne VIC 3000

Telephone
(03) 9919 1191
Facsimile:
(03) 9919-1112

My name is Rosemarie Tomolo and I am currently enrolled in a Masters programme in the School of Health Sciences, at Victoria University of Technology.

Your name and address were randomly selected from the White Pages book.

I would like to invite you to be a part of my Masters study investigating the general public's attitudes, perceptions and knowledge towards osteopathic practice in Melbourne.

This study will involve a short survey taking no longer than 10 minutes to complete. The results of the survey will reveal whether we need to improve the knowledge, attitudes and perceptions of the general public regarding osteopathy, so that more patients may seek osteopathic treatment and benefit from its high quality care.

To maintain your confidentiality, all your details and any information that could identify, you will be coded and locked away securely. **The information you provide will only be used for the purposes of this study. No information that identifies you will be published or made public in any way.**

In addition to this information leaflet, you will find enclosed a survey, which should be filled out using a pen, and returned in the postage paid envelope provided. If you decide to complete and return this survey, you will be consenting to participation in the project. Participation in this study is completely voluntary.

To ensure that only the opinions and perceptions of the ordinary public will be examined, if you are a doctor or other health professional, or aged under 18 years, please disregard this survey, as you will be ineligible for participation:

The survey has twenty questions. All participants are asked to please return surveys (using the reply paid postage envelope) by **June 20th, 2005.**

Any queries about your participation in this project may be directed to the researchers Dr Jim Kiatos (Principal Investigator), MB.BS (tel. 9919 1191) jim.kiatos@vu.edu.au or Rosemarie Tomolo (Student Investigator), BSc (Clinical Sciences) (tel. 9919-1111) rosemarie.tomolo@students.vu.edu.au. If you have any queries or complaints about the way you have been treated, you may contact the Secretary, University Human Research Ethics Committee, Victoria University Of Technology, PO Box 14428MC, Melbourne, 8001 (Telephone no: 03 9919-4710).

The General Public's Attitudes, Knowledge And Perceptions Towards Osteopathic Medicine in Melbourne.

YOUR DETAILS

Throughout this survey you will be asked a number of questions which can be answered by placing a tick in the box next to your preferred response (eg Yes ☑). The following questions will help us to organise your answers and I would stress that *your answer will be treated confidentially and no identifying information will be published or seen by anyone other than the researchers.*

Gender   Female ☐   Male ☐

Date of birth: …………………………….

Country of birth: ……………………………..

How well do you speak and understand English?

Poor   ☐
Average   ☐
Good   ☐

Which of the following options best describes your current situation?

In paid work (specify type of work) ....☐
Unemployed..☐
Retired from paid work..☐
Unable to work because of disability or ill health ....☐
In full time education or training ....☐
Other (please specify)……………………...

WHAT YOU KNOW ABOUT OSTEOPATHY AND RELATED HEALTH PROFESSIONS

Q1. **Which of the following have you <u>heard</u> of? You may tick more than one box.**

Osteopaths……………☐
Physiotherapists………☐
Chiropractors…………☐
Massage Therapists…...☐
Myotherapists…………☐

If you have heard of Osteopaths, please go to question 2

If you have not heard of Osteopaths, please go to question 3

Q2. **How did you first hear about Osteopathy?**

Doctor/Nurse/other medical professional ....☐
Friend/Relative...☐
TV ....☐
Radio ....☐
Newspaper...☐
Magazine...☐
Book..☐
Don't know, can't remember ....☐
Other (please specify) ....

Q3. **Have you been treated by any of the following? If yes, indicate how often.**

A Massage therapist   No ☐   Yes ☐   I was treated………….time/s.
A Myotherapist   No ☐   Yes ☐   I was treated………….time/s.
A Physiotherapist   No ☐   Yes ☐   I was treated………….time/s.
A Chiropractor   No ☐   Yes ☐   I was treated………….time/s.
An Osteopath   No ☐   Yes ☐   I was treated………….time/s.

If you have been treated by an Osteopath please go to question 4

If you have not been treated by an Osteopath, please go to question 6

Q4. **In general, how would you rate your osteopathic treatment(s)?**

Highly effective……………☐
Moderately effective………..☐
Not effective……………..☐
No opinion…………………☐

Q5. **Why did you first choose to see an Osteopath? You may tick more than one box.**

Recommendation by a GP or other medical professional…..☐
Dissatisfaction with doctors………………………………...☐
Dissatisfaction with other forms of alternative medicine…..☐
Heard that Osteopathy was very effective…………………☐
Other (please specify) ....
....
………………………………………………………………………………………………..

Q6. **Which of the following conditions do you think that Osteopaths treat? You may tick more than one box.**

Back pain ....☐   Aches and pains during pregnancy ....☐
Neck pain ....☐   Menstrual (period) pain............................☐
Whiplash ....☐   Constipation ....☐
Low back pain............☐   Muscle pain...☐
Arm or leg pain ....☐   Abdominal (tummy) pain...........................☐
Joint pain...................☐   Asthma..☐
Headache/migraine ....☐   Sports injury...☐
Arthritis.....................☐   Colic in babies..☐
Other(s) (please specify)………………………………………………………………

Q7. **Medical doctors must be government registered before they are allowed to practice. Do you think that Osteopaths have to be government registered before they are allowed to practice?**

Yes   ☐
No   ☐

Q8. **What type of treatment do you think patients receive from Osteopaths? You may tick more than one box.**

Massage...................................☐   Stretching internal organs.........☐
Manipulation (cracking).........☐   Needling (use of needles) ....☐
Stretching...............................☐   Treatment of muscles ....☐
Ultrasound.............................☐   Treatment of bones and joints ...☐
Water therapy........................☐   Surgery.....................................☐
Lymphatic (fluid) drainage ....☐   Other (please specify)…………..
Counselling ....☐   ………………………………….
Pilates....................................☐

Q9. **Would you like to learn more about Osteopathy?**

Yes ☐ Explain why: ....
....

No ☐ Explain why not: ....
....

Unsure ☐

Q10. **If you answered yes to the above question, in your opinion what do you think would be the best way to learn more about Osteopathy?**

Doctor/Other health professionals.. ☐   Books .... ☐
TV……………………………………….. ☐   Internet................................... ☐
Radio…………………………….……... ☐   Pamphlets............................... ☐
Newspapers……………………………. ☐   Other(s) (please specify) ....
Magazines…………………………….... ☐   ………………………………………..

For question 11, please use the scale (below) to record your response.

A =	*Very good knowledge*: high understanding of the profession, including the types of conditions treated, techniques used and principles behind the manual therapy.
B =	*Average knowledge:* some understanding of the conditions treated and techniques used by the profession.
C =	*Limited knowledge:* understand that the profession exists.
D =	*No knowledge:* no understanding or recognition of the professions existence.

Q11. **With regard to the above table, overall how would you rate your knowledge of each of the following professions? Please place a tick in the appropriate box:**

	A	B	C	D
Chiropractic				
Osteopathy				
Physiotherapy				
Massage				
Myotherapy				

Q12. If you selected A, B or C to any part of question **11**, please tick the appropriate box from which you learned most about Chiropractic, Osteopathy, Physiotherapy, Massage therapy and Myotherapy. You may tick more than one box.

	Chiropractic	Osteopathy	Physiotherapy	Massage Therapist	Myotherapy
Family/Friends					
Newspapers/magazines					
Radio/TV					
Internet					
The health professional themselves					
Other (please tick and specify*)					

*…………………………………………………………………………………………

Q13. What concerns would you have about seeing an Osteopath? You may tick more than one box.

Having to undress ....□   Don't believe in alternative therapy......□
Pain of treatment...................□   Unsure what osteopaths do ....□
Lack of results......................□   I have no concerns ....□
Skill/Ability of practitioner....□   Other (please specify)……………………
Previous bad experience ....□   …………………………………………………
Cost…………………………□

Q14. What do you think is the average cost for a thirty minute osteopathic consultation? Please specify if the cost you chose, is fair or excessive.

$20-40………□   Fair………□   Excessive………□
$40-60………□   Fair………□   Excessive………□
$60-80………□   Fair………□   Excessive………□
$80+…………□   Fair………□   Excessive………□

Q15. If you were to experience low back pain, who would you see for treatment? Briefly specify why you chose this health professional.

Chiropractor…………………………………...□ Why?…………………………..
Osteopath……………………………….........□ Why?…………………………..
Physiotherapist………………………………...□ Why?…………………………..
Massage therapist………………………………...□ Why?....................................
Myotherapist……………………....................□ Why?....................................
Doctor…………………………..................□ Why?....................................
Wouldn't visit any health professional……...□ Why?…………………………..
Other (please specify)……………………………………………………………..

YOUR MEDICAL DOCTOR AND OSTEOPATHY

If you have seen both a Medical Doctor(s) and an Osteopath(s) at some time in the past, please go to question 16.

If you have consulted your Medical Doctor, but never seen an Osteopath, go to question 20.

Q16. Have you ever told your medical doctor that you see an Osteopath?

Yes ☐ If you have answered **YES**, please go to question 17
No ☐ If you have answered **NO**, please go to question 19

Q17. What is your medical doctor's attitude towards Osteopathy?

Haven't discussed it………...☐   Very negative………☐
Supportive/enthusiastic……..☐   Lacks knowledge……☐
Unconcerned………………..☐   Other (please specify)…
                                   ……………………….

Q18. Do you believe the medical doctor's opinion has influenced your attitude and opinion towards osteopathy?

Yes ☐
No ☐

Q19. Why did you not inform your medical doctor that you see an Osteopath?

GP doesn't need to know…………...☐
Fear of what GP would say………….☐
Forgot to do so………………...☐
Other (please specify)………………………...

Q20. Other comments

If there is anything else you would like to tell us about your experiences or lack of experiences with osteopathy, please do so here.

....
....
....
……………………………………………………………………………………….

Thank you for completing the survey. If you have any questions about this study please contact Dr Jim Kiatos (9919-1191), or Rosemarie Tomolo (9919-1111).

APPENDIX C – Used Data from Surveys

Demographics

Gender	No of Respondents	Percent of Respondents
Male	79	49.6
Female	80	50.3

Age Group	Percent of Respondents
18-25	9
26-33	12
34-41	13
42-49	20
50-57	16
58-65	11
66-73	7
74-81	8
82+	4

Country of birth	Percent of Respondents
Australia	79
UK	7
Europe	7
India	1
New Zealand	1
Fiji	1
Japan	1
Mauritus	1
USA	2

Level of English	Percent of Respondents
Poor	1
Average	3
Good	96

Current Situation	Percent of Respondents
Paid	68
Unemployed	2
Retired from paid work	24
Unable to work because of disability or ill health	3
In full time education or training	3

Question 1.

Manual Therapists	No of Respondents
Osteopaths	132
Physiotherapists	154
Chiropractors	155
Massage Therapists	142
Myotherapists	47

Question 2.

Source of Osteopathy	No of Respondents
Medic	15
Friend/Relative	53
TV	13
Radio	5
Newspaper	10
Magazine	13
Book	6
Unsure	37
Other	7

Question 4.

Level of Effectiveness	Percent of Respondents who received osteopathic ttt
Highly Effective	70
Moderately Effective	22
Not Effective	7
No Opinion	1

Question 7.

Perception of Gov Registration	Percent of Respondents
Yes	88
No	12

Question 9.

Reasons for wanting to learn more about osteopathy
- heard osteopathy to be effective
- enhance knowledge
- enhance understanding
- important to know
- curiosity
- for use/benefit
- interested
- knew of excellent osteopath
- remove ignorance

Reasons for not wanting to learn more about osteopathy
- no relevance
- trust medical model
- too old doe osteopathic treatment
- happy with current knowledge
- uninterested
- ineffective
- satisfied with other forms of medicine
- trust in Osteopath

Question 10.

Mode To Learn	Percent of Respondents
Doctor	21
TV	11
Radio	7
Newspaper	11
Magazine	9
Books	7
Internet	14
Pamphlets	19
Other	1

Question 13.

Concerns	Percent of Respondents
Undress	2
Pain of Treatment	6
Lack of Results	7
Skill of Osteopath	16
Previous bad experience	1
Cost	17
Don't believe in A/Therapy	2
Unsure what Osteopaths do	29
No Concerns	18
Other	2

Question 15.

Seek for LBP	Percent of Respondents
Chiropractor	20
Osteopath	12
Physiotherapist	24
Massage Therapist	9
Myotherapist	10
GP (Doctor)	32
Wouldn't consult anyone	2

Reasons for seeking GPs for LBP
- access to initial diagnosis
- good results
- specific to particular pain/most appropriate
- recommended
- more knowledge about profession
- ability to refer
- primary health care providers
- trust

Reasons for seeking Osteopaths for LBP
- effective treatment
- used in past / past experience
- see regularly
- treatment technique
- gentle
- wholistic
- good advice
- believe in principles

Question 17.

GP's attitude towards osteopaths	Percent of Respondents
Haven't discussed it	18
Supportive/Enthusiastic	55
Unconcerned	27
Very Negative	0
Lack Knowledge	0
Other	0

Question 19.

Reasons for not disclosing information	Percent of Respondents
GP doesn't need to know	78
Fear of what GP would say	7
Forgot to do so	15
Other	0

Question 20.

Other Comments
- lack of knowledge
- know little about osteopathy
- found osteopathy o be effective
- osteopathy minimises duration of injuries
- found osteopaths to be more gentle and less intrusive
- would only seek osteopathic treatment, if GP recommended it
- no need for osteopathic treatment
- want to understand how osteopathy fits into the medical system

APPENDIX D – Chi Square Data

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
KNOWLEDG * TREATED	159	100.0%	0	.0%	159	100.0%

KNOWLEDG * TREATED Cross tabulation

			TREATED		Total
			1.00	2.00	
KNOWLEDG Very good		Count	7	1	8
		Expected Count	1.4	6.6	8.0
		% within KNOWLEDG	87.5%	12.5%	100.0%
		% within TREATED	25.0%	.8%	5.0%
		% of Total	4.4%	.6%	5.0%
	Average	Count	17	11	28
		Expected Count	4.9	23.1	28.0
		% within KNOWLEDG	60.7%	39.3%	100.0%
		% within TREATED	60.7%	8.4%	17.6%
		% of Total	10.7%	6.9%	17.6%
	Limited	Count	4	88	92
		Expected Count	16.2	75.8	92.0
		% within KNOWLEDG	4.3%	95.7%	100.0%
		% within TREATED	14.3%	67.2%	57.9%
		% of Total	2.5%	55.3%	57.9%
	No	Count	0	31	31
		Expected Count	5.5	25.5	31.0
		% within KNOWLEDG	.0%	100.0%	100.0%
		% within TREATED	.0%	23.7%	19.5%
		% of Total	.0%	19.5%	19.5%
Total		Count	28	131	159
		Expected Count	28.0	131.0	159.0
		% within KNOWLEDG	17.6%	82.4%	100.0%
		% within TREATED	100.0%	100.0%	100.0%
		% of Total	17.6%	82.4%	100.0%

Chi-Square Tests

	Value	Df*	Asymp.* Sig. (2-sided)
Pearson Chi-Square	80.568	3	.000
Likelihood Ratio	71.550	3	.000
Linear-by-Linear Association	62.773	1	.000
N of Valid Cases	159		

df: Degrees of Freedom
Asymp: p value (significance level)

2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.41.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
AGE * LEARN	159	100.0%	0	.0%	159	100.0%

AGE * LEARN Cross tabulation

			LEARN			Total
			1.00	2.00	3.00	
AGE	18-25	Count	3	3	0	6
		Expected Count	2.8	1.8	1.4	6.0
		% within AGE	50.0%	50.0%	.0%	100.0%
		% within LEARN	4.1%	6.3%	.0%	3.8%
		% of Total	1.9%	1.9%	.0%	3.8%
	26-33	Count	7	7	6	20
		Expected Count	9.3	6.0	4.7	20.0
		% within AGE	35.0%	35.0%	30.0%	100.0%
		% within LEARN	9.5%	14.6%	16.2%	12.6%
		% of Total	4.4%	4.4%	3.8%	12.6%
	34-41	Count	13	4	7	24
		Expected Count	11.2	7.2	5.6	24.0
		% within AGE	54.2%	16.7%	29.2%	100.0%
		% within LEARN	17.6%	8.3%	18.9%	15.1%
		% of Total	8.2%	2.5%	4.4%	15.1%
	42-49	Count	19	7	9	35
		Expected Count	16.3	10.6	8.1	35.0
		% within AGE	54.3%	20.0%	25.7%	100.0%
		% within LEARN	25.7%	14.6%	24.3%	22.0%
		% of Total	11.9%	4.4%	5.7%	22.0%
	50-57	Count	13	8	3	24
		Expected Count	11.2	7.2	5.6	24.0
		% within AGE	54.2%	33.3%	12.5%	100.0%
		% within LEARN	17.6%	16.7%	8.1%	15.1%
		% of Total	8.2%	5.0%	1.9%	15.1%
	58-65	Count	10	3	7	20
		Expected Count	9.3	6.0	4.7	20.0
		% within AGE	50.0%	15.0%	35.0%	100.0%
		% within LEARN	13.5%	6.3%	18.9%	12.6%
		% of Total	6.3%	1.9%	4.4%	12.6%
	66-73	Count	4	6	2	12
		Expected Count	5.6	3.6	2.8	12.0
		% within AGE	33.3%	50.0%	16.7%	100.0%
		% within LEARN	5.4%	12.5%	5.4%	7.5%
		% of Total	2.5%	3.8%	1.3%	7.5%
	74-81	Count	4	7	2	13
		Expected Count	6.1	3.9	3.0	13.0
		% within AGE	30.8%	53.8%	15.4%	100.0%
		% within LEARN	5.4%	14.6%	5.4%	8.2%
		% of Total	2.5%	4.4%	1.3%	8.2%
	82+	Count	1	3	1	5
		Expected Count	2.3	1.5	1.2	5.0
		% within AGE	20.0%	60.0%	20.0%	100.0%

	% within LEARN	1.4%	6.3%	2.7%	3.1%
	% of Total	.6%	1.9%	.6%	3.1%
Total	Count	74	48	37	159
	Expected Count	74.0	48.0	37.0	159.0
	% within AGE	46.5%	30.2%	23.3%	100.0%
	% within LEARN	100.0%	100.0%	100.0%	100.0%
	% of Total	46.5%	30.2%	23.3%	100.0%

Chi-Square Tests

	Value	df*	Asymp.* Sig. (2-sided)
Pearson Chi-Square	19.439	16	.247
Likelihood Ratio	20.891	16	.183
Linear-by-Linear Association	.198	1	.656
N of Valid Cases	159		

df: Degrees of Freedom
Asymp: p value (significance level)

12 cells (44.4%) have expected count less than 5. The minimum expected count is 1.16.