

Survey of Public Knowledge of Chiropractic

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Abstract:

This paper gauges the general public's knowledge of the chiropractic profession and Chiropractic's education. Also, the survey asked questions about various terms used in Chiropractic such as subluxation. This information was gathered doing a survey of one hundred random participants of the general public at various locations. An exclusion screening was asked to each participant to ensure they were proper age, not a chiropractic student, nor a long-term chiropractic patient. Chiropractic students and long-term chiropractic patients would have a better knowledge of chiropractic terms and practices than the average person. It was hypothesized that public's knowledge of chiropractic is limited, and not improving enough to get more than 50% of the questions correct. After we completed the survey of twelve questions regarding general chiropractic knowledge participants answered 56.8% of the questions correctly. 3 questions were regarding the perception of chiropractic, and these answers varied greatly throughout the survey.

Introduction:

Many doctors of chiropractic assume that the public has knowledge of the techniques, practices, and terminology of the chiropractic profession. This is due to the fact that most chiropractors are only aware of the good references about chiropractic and the information they provide. For Instance, the Logan College of Chiropractic website provides answers to frequently asked questions such as What does a chiropractor do, and what are the qualifications for receiving a chiropractic degree (Logan). Palmer College of Chiropractic's website talks about preventative health care measures and provides video testimonials from professional athletes such as Bill Kazmaier about their positive experiences with chiropractic(Palmer). These websites contain very good knowledge but the general public is not often directed to them when searching for chiropractic information on a search engine such as "Google", and nor do the majority of public know where to get sound answers to their chiropractic questions.

What many Doctors of chiropractic do not realize is that the negative and misleading information about chiropractic is far more abundant than the good, especially online. When doing a search on the "Google" search engine, typing in "chiropractic bad" lead to an article discussing the negative things that can happen at a chiropractors office. The article "Chiropractic: Does the Bad Outweigh the Good" written by Samuel Homola discusses how many of the chiropractic theories are not supported by research or outdated. He states "Most chiropractors claim to do more than just treat back pain, and are clinging to the scientifically rejected theory that misaligned or "subluxated" vertebra cause "nerve interference" that results in disease or ill health. Many chiropractors use "spinal adjustments" to treat disease and infection as well as back pain"(Homola). This

website also has features a paper talking about the probability of stroke when receiving a cervical adjustments. The article Chiropractic's Dirty Secret: Neck manipulation and Stroke by Stephen Barrett M.D. talks about how it is possible to get a stroke when receiving a chiropractic cervical adjustment (Dirty Secret). However, in many research articles they do not have chiropractors do the adjusting (Liu). Information like this is plentiful online and many chiropractors do not always know about the amount of negative and exaggerated information out there.

Chiropractors are considered primary care physicians and many chiropractors consider themselves qualified as primary care providers. However, consumer attitudes of such may affect practice success of the belief. In a survey study of the public, patients had varied views of what chiropractors can and cannot treat (Cambron). Thus, Chiropractors have a responsibility to seek and out understand the public perceptions of what and who we are, and this can be done through proper surveying. Currently in Australia they are conducting a survey to ascertain how the public is currently being served by chiropractic, what kind of services are being used, and what, if any alterations are needed in order to better meet the needs of the community (Danninger).

In order to see what the public actually knows about chiropractic we implemented the use of a 15-question survey given to the public population that has little to no background in the chiropractic profession. The purpose of this survey is to find out how much knowledge the public has about these topics. There are also questions included related to how the public perceives chiropractic. These questions are to get a better understanding of how participants feel towards chiropractors and the profession in general. In order to ensure that we get an unbiased result we have implemented several

screening questions, to exclude people with past chiropractic experiences. These include chiropractic students and people who have received long-term chiropractic care. We have hypothesized that the public will have minimal knowledge about the techniques, practices, and terminology of the chiropractic profession, and this will be shown in the survey taken.

Methods:

We will give a 15-question survey of the techniques, practices, terminology, and perception of the chiropractic profession. The survey will be done by handing out paper surveys to one hundred random participants at approved locations. The public taking the survey will be asked a questionnaire to exclude participants if they have been receiving chiropractic treatment for two or more months, are younger than 18 years of age, or the participants can not currently be or previously have been enrolled in a chiropractic college. Once 100 surveys have been completed by the public that meet the inclusion criteria we will calculate the percentage of correct answers for each question individually of the 12 questions dealing with common knowledge of chiropractic (1 question for all 100 surveys). Once we conclude the percentage answered correctly for each question we will calculate the percentage of correct answers overall (all 12 questions for all 100 surveys). Of the 3 perception questions we simply calculated the percentage of each answer chosen for the 3 questions individually to see what people thought or perceived of different areas of the chiropractic profession. If a question is answered with an “I do not know” it will be omitted from the percentage. All participants will remain anonymous. We used some of the information off of “survey systems” website to help establish things with in our survey such as goals and objectives. (Survey Systems)

Statistics:

Survey Questions Percent Calculations

1) What does the word “chiropractor” mean?

- a. Done by hand - 20
- b. Bone mover - 43
- c. Doctor - 16
- d. Philosophy - 2
- e. I do not know – 19

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

$20 / (100-19) \times 100 = 24.7\%$ Correct

2) What is a trigger point?

- a. To fire a gun - 2
- b. To aim at a point - 1
- c. A noxious point in a muscle - 85
- d. To focus your energy to a single point - 12
- e. I do not know - 0

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

$85 / (100-0) \times 100 = 85.0\%$ Correct

3) A chiropractic adjustment is defined as?

- a. Manipulation of a joint or muscle - 94
- b. The popping noise of a joint - 5
- c. An invasive procedure - 0
- d. A dangerous procedure - 0

e. I do not know - 1

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

94 / (100-1) x 100 = 95.0% Correct

4) The chiropractic definition of “subluxation” is:

- a. A bone completely dislocated - 46
- b. Dysfunctional biomechanical segment - 30
- c. A medical emergency - 0
- d. A blood disorder - 4
- e. I do not know - 20

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

30 / (100-20) x 100 = 37.5% Correct

5) Which of the following is true about scoliosis?

- a. It is always painful and life threatening - 3
- b. It is always painful - 7
- c. It is always reversible - 12
- d. None of the above - 60
- e. I do not know - 18

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

60 / (100-18) x 100 = 73.2% Correct

6) A chiropractor is titled as _____?

- a. A primary care physician - 11
- b. A back doctor only - 3
- c. A glorified physical therapist - 8

- d. A therapeutic physician - 74
- e. I do not know - 4

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

$$11 / (100-4) \times 100 = 11.5\% \text{ Correct}$$

7) How many years after college does a Chiropractor go to school?

- a. One to two years - 6
- b. Two to three years - 26
- c. Three to four years - 53
- d. Chiropractors do not have to graduate from college first - 1
- e. I do not know - 14

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

$$53 / (100-14) \times 100 = 61.6\% \text{ Correct}$$

8) Chiropractors are not trained to do which of the following?

- a. Physical Exam - 1
- b. Prescribe Medicine - 30
- c. Do Blood Work - 27
- d. Perform Minor Surgery 29
- e. I do not know - 13

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

$$30 / (100-13) \times 100 = 34.5\% \text{ Correct}$$

9) The chiropractic philosophy is based on which system?

- a. Vascular - 8
- b. Nervous - 76

- c. Lymphatic - 7
- d. Respiratory - 0
- e. I do not know - 9

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

76 / (100-9) x 100 = 83.5%% Correct

10) How knowledgeable are Doctors of Chiropractic about nutrition?

- a. Very knowledgeable about nutrition - 45
- b. Knowledgeable about nutrition but not as much as other professionals - 46
- c. Very little knowledge about nutrition - 4
- d. Know nothing about nutrition - 5
- e. I do not know - 0

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

45 / (100-0) x 100 = 45.0% Correct

11) Do you think insurance will cover all treatments done at a Chiropractors office?

- a. All treatments will be covered by the insurance company - 21
- b. Insurance will only cover treatments done to the spine - 18
- c. Insurance will only cover manual adjustments - 15
- d. Insurance will cover anything done at a Chiropractors office - 17
- e. I do not know - 29

*No True Correct Answer, But asked question to find public perception of answer

12) How do Chiropractors handle X-rays and other imaging studies (MRI, CT, etc.)?

- a. Chiropractors can read all Imaging studies - 54
- b. Chiropractors can only read X-rays - 23

- c. Chiropractors cannot read any Imaging studies - 11
- d. Chiropractors cannot order or read imaging studies - 1
- e. I do not know - 11

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

54 / (100-11) x 100 = 60.7% Correct

13) How do Doctors of Chiropractic use lab tests?

- a. Chiropractors can both order and interpret lab tests - 60
- b. Chiropractors can only order lab tests not interpret them - 2
- c. Chiropractors cannot order or read lab tests - 16
- d. Chiropractors can only read lab tests - 8
- e. I do not know - 14

Answered Correctly / (Total Questions – # Answered I do not know) x 100 = % Correct

60 / (100-14) x 100 = 69.8% Correct

14) How long can you expect to go to your chiropractor?

- a. One visit - 0
- b. A couple of weeks - 3
- c. A couple of months - 39
- d. For the rest of my life - 39
- e. I do not know - 19

*No True Correct Answer, But asked question to find public perception of answer

15) Do you expect Chiropractic adjustments to be painful?

- a. Sore after an adjustment but it will go away soon after - 48
- b. Sore for a day or two after an adjustment - 16

- c. Will not be sore at all - 23
- d. Will hurt for at least a week - 2
- e. I do not know - 11

*No True Correct Answer, But asked question to find public perception of answer

Total Percent Correct Calculations

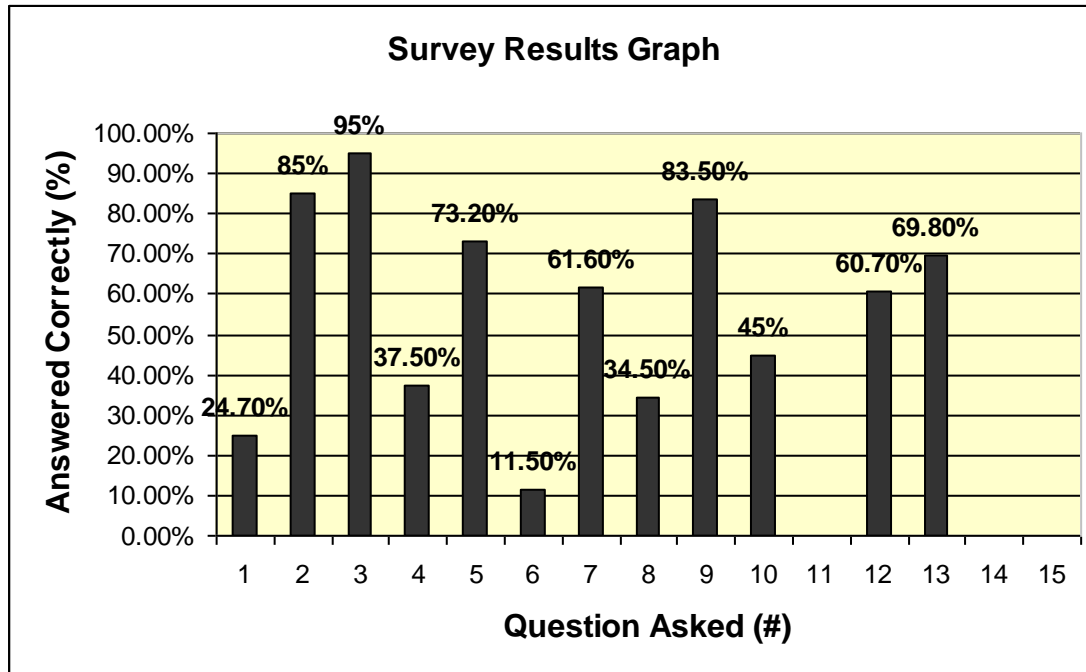
(% Correct of 12 Non-Perception Questions Added Together) / 12 X 100 = % Correct

$(.247 + .85 + .95 + .375 + .732 + .115 + .616 + .345 + .835 + .45 + .607 + .698) / 12 \times 100$

$6.82 / 12 \times 100 = 56.8\%$ Answered Correctly

Results:

The result of each question answered correctly was calculated to the nearest tenth of percent. The reason only 12 of the questions have a percentage answered correct is due to questions numbered 11, 14, and 15 being perception of chiropractic questions, and thus do not have on correct answer (described below). The results are as shown in the graph below (Survey Results Graph).



After looking at each question individually the total score of the 12 questions (1-10 and 12-13) was 56.8% of these questions were answered correctly.

Of the three perceptions of chiropractic practices questions the answers chosen greatly varied. Question 11 asked, “Do you think insurance will cover all treatments done at a chiropractic office?” Answer “A” was chosen by 21% that “All Treatments will be covered by the insurance company. Answer, “B” was chosen by 18% “Insurance will only cover treatments done to the spine”. Answer “C” was chosen by 15% “Insurance will only cover manual adjustments”. Answer “D” was chosen by 17% “Insurance will cover anything a chiropractor does. Finally, Answer “E” was chosen 29% “I do not know”.

Question 14 asked, “How long can you expect to go to your chiropractor?” Answer “A” was chosen 0% “one visit. Answer “B” was chosen 3% “A couple of

weeks”. Answer “C” was chosen 39% “A couple of months”. Answer “D” was chosen 39% “For the rest of my life. Finally answer “E” was chosen by 19% “I do not know”.

Question 15 asked, “Do you expect Chiropractic adjustments to be painful?” Answer “A” was chosen by 48% “Sore after an adjustment but will go away soon after”. Answer “B” was chosen by 16% “Sore for a day or two after an adjustment”. Answer “C” was chosen 23% “ will not be sore at all”. Answer “D” was chosen 2% “Will hurt for at least a week”. Finally, answer “E” was chosen 11% “I do now know”.

Discussion:

Through our methods we have come to a conclusion that of the 12 questions we asked dealing with the techniques, practices, and terminology of the chiropractic profession only 56.8% of these questions were answered correctly thus disproving our hypothesis that the majority of people would get the answers wrong, and thus that people’s knowledge of chiropractic is improving. However, though the percentage answered correctly is better than a guess (25%), and more than half of the participants that answered A-D, it is still however a small majority. This means that even though we excluded those people who chose answer (e) on each question stating “I do not know” 43.2% of people thought they knew the correct answer to the question, but answered incorrectly still.

Of the 3 perception questions we asked (#’s 11, 14, & 15) the results varied greatly from question to question. Number 11 was a question asking asked, “Do you think insurance will cover all treatments done at a chiropractic office?” Since this questions answer varies on what insurance the participant is using there is no one right answer. However, due to the inclusion of only participants with little to no knowledge or

experience with chiropractic we were curious on what answer participants would choose. The majority chose answer “E” stating, “I do not know” at 29% thus simply proving that people don’t know what insurance covers in chiropractic.

Question number 14 asked, “How long can you expect to go to your chiropractor?” Since this question varies on the condition you have going into the chiropractor there is no one right answer. However, again due to the inclusion of only participants with little to no knowledge or experience with chiropractic we were curious on what answer participants would choose. The majority was split between the answers “c” stating “A couple of months”, and answer “D” stating “For the rest of my life”. Both were chosen 39% of the time. This shows that people perceive having to go the chiropractor for a sustained period of time ranging from a couple of months to their entire lives.

Question number 15 asked, “Do you expect Chiropractic adjustments to be painful?” Since this question varies of multiple variables ranging from technique, to extent of patients injury, to patients physical fitness there is no one right answer. . However, again due to the inclusion of only participants with little to no knowledge or experience with chiropractic we were curious on what answer participants would choose. An overwhelming majority of 48% chose answer “A” stating you would be “Sore for a day or two after an adjustment but it will go away soon after”. This answer shows that people understand the process of an adjustment, and that it may include pain as a necessary step in order to improve. This in the majority of situations is the correct answer (although not all the time) showing that the public majority understands this process of chiropractic.

Due to us only having 15 questions in our survey and only asking 100 participants our information gathered was limited. Thus there is opportunity for further studies to ask more questions to more participants in order to get a better conclusion than that of our study. Also, the exclusion of “I do not know” from the survey answer choices would force participants to take a stand on the answer they believe is correct possibly giving different results than what we concluded. We could have also gotten rid of the three perception questions that truly have no correct answer, and simply stuck with the techniques, practices, and terminology questions in order to get a better conclusion in that area.

Further studies should also be done in order to further delineate our results. Studies should be done separating techniques, practices, and terminology of the chiropractic profession to see if we are educating the public more on one of these topics more than another. Our study included these subjects as a whole so we are unable to come to a conclusion on each of the topics individually.

Another avenue would be to survey specific portions of the health fields such as Medical Doctors, Doctors of Osteopathy, Nurses, and others in the health field to see how much they know about the chiropractic profession in various areas. There was a study submitted in 2011 that surveyed orthopaedic surgeons on chiropractic. In the study the surgeons stated an “endorsement for chiropractic treatment of musculoskeletal complaints, criticism for treatment of non-musculoskeletal complaints, and concern over whether chiropractic care was evidence-based” (Busse). This is concerning considering in a research study it was found that 61% of people go to their medical doctor over the 28% that went to Chiropractors for their spinal pain (Chevan). There was also a study

conducted asking midwives about their attitude and views on chiropractic. The study found that the midwives were “aware that chiropractors worked with "birthing professionals" and attended to patients with both musculoskeletal and non-musculoskeletal disorders. A vast majority indicated a positive personal and professional clinical experience with chiropractic and that chiropractic was safe for pregnant patients and children” (Mullin). This survey showed that there is great awareness of and positive personal and professional experience with chiropractic on the part of midwives who participated in this survey. The article also stated that they “encourage further research in this field” (Mullin). Further surveys could be conducted on what health care professionals know about chiropractic, and that our procedures such as spinal manipulative therapy have been proven to be safe and effective in treating musculoskeletal pain (Bronfort).

Conclusion:

We as chiropractors have a duty to educate the public about the techniques, practices, and terminology that we use as a profession. The goals of this study were to see if the public was knowledgeable of the techniques, practices, and terminology of the chiropractic profession. Through our study we have come to the conclusion that the general public is more knowledgeable about the chiropractic profession than we previously hypothesized, and that the public knowledge though limited, is improving. This outcome disproves our hypothesis that the public is not knowledgeable of the techniques, practices, and terminology of the chiropractic profession.

You may assume you know what health-care consumers think about your profession, but the best way to know for sure is to ask them. Recent national survey by

the Foundation for Chiropractic Progress did just that. The telephone survey of more than 600 adults was underwritten by Foot Levelers, Inc., and conducted by Media General Research, one of the nation's leading consumer research organizations. The survey sought the opinions of randomly selected adults across a wide range of age and ethnic groups, educational and income levels, and occupations. 56% of respondents who received chiropractic care in the past for specific conditions found it to be "very effective". 41% of respondents who had experienced specific conditions during the past year, and who had not sought chiropractic care for their conditions, did consider seeking treatment from a chiropractor, which is a very important finding (Greenawalt). The results of the survey are encouraging, but the data confirms what many chiropractic professionals have felt for a long time. The chiropractic message just isn't reaching enough people.

A similar study was performed in the UK in 2004 and again in 2009, and found that knowledge of chiropractic had improved from the 2004 survey to the surveys taken in 2009 (Chirocentre). In the study it is encouraging seeing that the UK public is gaining a better understanding that a chiropractor can help treat back or spine pain problems. Those who have consulted a chiropractor three times or more are more likely to have a better understanding about the chiropractic profession.

There is however good news for chiropractic, and that is for the small portion of the population it has reached: People like Their Chiropractors. Although there is currently being developed a MedRisk instrument to further measure patient satisfaction with chiropractic care the studies that have been done show good result for the chiropractic profession (Beattie). "A Gallup poll conducted in the United States and reported in March of 1991

examined the attitudes and behaviors of both users and nonusers of chiropractic services. Of the users of chiropractic services: 90% felt chiropractic treatment was effective; more than 80% were satisfied with their treatment; nearly 73% felt most of their expectations had been met during their visits; 68% would see a chiropractor again for treatment of a similar condition; 30% would likely see a chiropractor again for other conditions” (Francis).

Another study done by the Connecticut Chiropractic Association found that “of the respondents who went, 78% rated their treatment as effective, 89% were satisfied with the amount of personal attention they received, 72% were satisfied with the cost of their treatment, and 72% said they would go again for the same or similar problem. When those who are familiar with chiropractic were asked their overall opinion of it, 78% of those who expressed a definite opinion were favorable” (Wardwell).

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