

Perception of the chiropractic service of students of Universidad Veracruzana, Veracruz Region.

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Abstract

In the state of Veracruz, as in others in the country, anyone who complains of musculoskeletal discomfort in any area of the body goes to a bonesetter or to people recognized as chiropractors who lack professional training, thus affecting the population's perception of chiropractic. The objective of this article was to determine the perception of the chiropractic service in the student population of the Universidad Veracruzana, Veracruz region.

During the February-July semester, a survey with 16 items was applied, and 134 responses were obtained that met the inclusion criteria, 87 (65%) women and 47 men (35%). 90% (120) of the participants in the survey think they have a good perception of the chiropractic service, and 10% (14) think they have a bad perception. Concerning knowledge, 54% (72) report good knowledge of the chiropractic service, 41% (55) report regular knowledge, and 5% (7) do not know the chiropractic service.

Of the 134 respondents, only 121 have used the service so they were able to give their opinion about the chiropractic care process and results obtained during their treatment. 118 (97.5%) responses rated the care process as good, 3 (2.5%) as average, and 0 as bad; while the results 102 (84%) responses were classified as good, 18 (15%) as fair, and 1 (1%) as bad.

Keywords

Musculoskeletal discomfort,
Chiropractors,
student population,
Universidad Veracruzana

Introduction

In the state of Veracruz, as in others in the country, anyone who complains of neuromusculoskeletal discomfort in a particular area of the body goes to a bonesetter, bone specialist, or even to people recognized as chiropractors who lack professional training.

Ignorance or the erroneous idea of what a chiropractor does, can have negative repercussions on the perception of a profession and, above all, on the health of a patient, because when the patient goes to someone who lacks the necessary academic training, that is a fake chiropractor without a license they can complicate your reason for consultation or even get hurt during the process.

In 2005, the World Health Organization (WHO) established that chiropractic is defined as a "health profession concerned with the diagnosis, treatment, and prevention of disorders of the neuromusculoskeletal system and the effects of these disorders on health in general," whose philosophy is based on concepts and principles different from those of other health professions such as physical therapy or physiotherapy. (1,2) Chiropractic traces its origin to Davenport, Iowa, on September 18, 1895, after the first spinal manipulation performed by its founder D. D. Palmer, who was then a biomagnetist. This first manipulation was the starting point for a period of discovery and development of fundamentals and techniques based on manipulation of the spine, under the theory that bones out of their anatomical position caused disease due to pinching of the nerves. Over time these techniques improved and expanded until they reached the point where the profession has 52 educational programs, distributed worldwide. (3–5)

Since 2013, the Universidad Veracruzana has been one of the 3 recognized universities in Mexico that offers a degree in chiropractic, being the first university in the world to teach it within a medical school. Before the students graduate, they

provide a year of social service in which they demonstrate and put into practice the skills acquired during their academic training. (6)

This research begins with the objective of determining how much impact and dissemination of information has been had in social service positions about the work of a chiropractor, among the students at Veracruz University; Since part of the comprehensive training of the chiropractic graduate, the skills and competencies that we must develop as future professionals include assertive communication and the ability to lead your community towards a healthy lifestyles.

Likewise, it has been shown recently that chiropractic reduces costs and improves health outcomes in some musculoskeletal injuries, such as the case of pain in which it helps reduce pain and functional disability; Therefore, chiropractic is a profession that has much to contribute to public health. (7–9)

In the article "Public's Perception of Chiropractic: A Survey" to identify the public's perception of chiropractic and their views on the role of chiropractors in medical care, a survey was conducted with 182 people, whose results were: the majority (76%) believe that chiropractors work with bones, muscles, and joints, and only 10% believe that chiropractors act on the nervous system. Furthermore, only 18% believed that prevention was a focus of chiropractic care.

Of the 155 responses regarding satisfaction with chiropractic care, 81% were happy with their treatment, 6% were dissatisfied, and 12% were unsure. The 6% who were dissatisfied had concerns related to costs and the number of visits required.

34% and 56% believe chiropractors are as well trained as GPs and physiotherapists respectively. Additionally, 64% of participants perceived that chiropractic is not dangerous, 57% were interested in learning more, and 19% responded that they needed to be convinced to see a chiropractor. (10)

The article “The Chiropractic Profession: A Scoping Review of Utilization Rates, reasons for Seeking Care, Patient Profiles, and Care Provided” mentions the care that chiropractors provide, with the main reasons for attending chiropractic care being musculoskeletal conditions, including lumbar and cervical pain. In the pediatric population (18 years), the most common reason for seeking chiropractic care was musculoskeletal conditions, with a median of 44.0% (IQR: 34.7%-57.0%). Only 3.1% (IQR: 1.6%-6.1%) of the general population sought chiropractic care for visceral/non-musculoskeletal conditions. (11)

Methodology

Cross-sectional descriptive research was carried out, for which surveys were applied using the Google Forms application, the survey was mainly

made up of Likert-type scales. A probabilistic random cluster sampling was carried out on students from the Universidad Veracruzana who had the chiropractic care service in their faculty and wished to participate, obtaining a response of 134 students in total.

Results

134 people participated in this research. Of the surveys administered, 100% met the inclusion criteria. However, only 121 participants have used the chiropractic service, so only they could give their opinion about the care process and the results obtained during treatment. women 64.9% (87), and 47 men (35.1%) participated, in terms of age, 95% (128) participated more in the range of 17 to 27 years. Charts 1 and 2.

Chart 1 Percentage of the population studied by sex.

Sex	Count	% of column number
Men	47	35.1%
Women	87	64.9%
Total	134	100.0%

Source: self-developed database

Chart 2 Percentage of population studied by age range.

Age	Count	% of column number
>38	1	0.7%
17-21	78	58.2%
22-27	50	37.3%
28-33	3	2.2%
33-38	2	1.5%
Total	134	100.0%

Source: self-developed database

To carry out this project, 5 faculties of the Universidad Veracruzana Veracruz region where the chiropractic care service is available were considered, obtaining a total of 53 (39.6%) responses from the Faculty of Medicine, 29

(21.6%) from the Faculty of Engineering and Psychology, 14 (10.4%) from the Faculty of Administration and 9 (6.7%) from the Faculty of Communication. Chart 3.

Chart 3 Participation by faculty of affiliation

Faculty of affiliation	Count	% of column number
Administration	14	10.4%
Communication	9	6.7%
Engineering	29	21.6%
Medicine	53	39.6%
Psychology	29	21.6%
Total	134	100%

Source: self-developed database

To identify the interest of the community regarding the service, the following question was asked: Have you used the chiropractic service offered at your location? It was found that 90% of the participants in the survey have used

chiropractic services. Of the participants, 61 (45.5%) reported using it very frequently, 47 (35.1%) Frequently, 13 (9.7%) Sometimes, 12 (9.0%) Never, and 1 (0.7%) I have not been interested. Chart 4

Chart 4. Student community interest

Have you used the chiropractic service offered at your school?	Count	% of column number
Never	12	9.0%
I have not been interested	1	0.7%
Sometimes	13	9.7%
Frequently	47	35.1%
Very often	61	45.5%
Total	134	100%

Source: self-developed database

When participants were questioned about their knowledge of the chiropractic care service, they were classified/rated as either Good, Fair, or Bad. Which was integrated by adding 5 items: Definition of chiropractic, Word that you relate to chiropractic, Chiropractic is a professional career that is studied at the university level, Have you used the chiropractic care service offered at your location? What is the reason why you have not attended the chiropractic care service at your location?

It was identified that 54% (72) have good information about what Chiropractic is, and they manage to differentiate the work of the Chiropractic professional and therefore have made use of the chiropractic service, 41% (55) have regular knowledge about the chiropractic profession and its work and only 5% (7) have no information or have incorrect information about chiropractic and its professional work. Chart 5

Chart 5. Percentage of knowledge about the chiropractic service

Knowledge	Score	Count	% of column number
Good	15-20	72	53.7%
Average	9-14	55	41.0%
Bad	0-8	7	5.2%
Total		134	100%

Source: self-developed database

Regarding the perception of the care process, only 121 surveys were analyzed that correspond to the participants who have used the chiropractic care service, they were classified as either Good, Average, or Bad by adding 5 items: The facilities for the students who requested chiropractic care are appropriate, During the care you received, some tool was used to help reduce your symptoms. Did the chiropractor introduce

himself/identify himself and make you feel secure/comfortable? The chiropractor explained the procedure of the maneuvers he/she would do. How was the treatment you received from the chiropractor?

It was found that 97% (118) have a good perception of the care process and 3% (3) have a fair perception of the service received in the chiropractic clinic. Chart 6

Chart 6. Perception of the care process in percentage

Care process	Score	Count	% of column number
Good	15-20	118	97.5%
Average	9-14	3	2.5%
Bad	0-8	0	0.0%
Total		121	100%

Source: self-developed database

The perception of chiropractic care was obtained by adding 2 items: How many times did you go to the chiropractic care service at your location? From 0 to 10, indicate the improvement you observed with chiropractic care. It was classified as either Good, Average, or Bad; 84% (102) of the participants have a good perception of chiropractic care, and 15% (18) and 1% (1) poorly think they perceive chiropractic care as Bad. 85.1% (103) observed an improvement between 8-10 in the chief complaint, 11.6% (14) reported improvement between 6-7, 1.7% (2) between 4-5,

and another 1.7% (2) between 2-3. When relating the opinion to the improvement scale, it's observed that the good perception of chiropractic care is directly related to the improvement of the chief complaint observed by the user.

It is important to note that one participant believes he has a poor perception of chiropractic care, which is helpful to analyze since it generates a valuable area of opportunity to improve chiropractic service. Chart 7 and Chart 8

Chart 7. Perception of chiropractic care in percentage

Care outcomes	Score	Count	% of column number
Good	6-8	102	84.3%
Average	3-5	18	14.9%
Bad	0-2	1	0.8%
Total		121	100%

Source: self-developed database

Chart 8. The improvement observed by the user in ranges.

	Scale	Count	% of column number
From 0 to 10, indicate the improvement you observed with chiropractic care.	0-1	0	0.0%
	2-3	2	1.7%
	4-5	2	1.7%
	6-7	14	11.6%
	8-10	103	85.1%
Total		121	100%

Source: self-developed database

Finally, when analyzing the information obtained regarding the perception of the chiropractic care service, it was found that 90% (120) had a good perception of the service and 10% (14) thought they had a bad perception of it. The 10% with a bad perception of the service have not had an approach as a user of the service, which could be one of the main reasons for having this perception, as it is a worrying situation and of great interest to the health clinic and the

chiropractic service, the need arises to develop another research work that, through an instrument with more indicators of the perception of the service, allows pinpointing the reasons why one has said opinion. On the other hand, it is relevant to comment that there were no reports of a regular perception of the service, which may be related to the diffusion of information about chiropractic. Chart 9

Chart 9. Percentage of the general perception of the chiropractic service

Perception	Score	Count	% of column number
Bad	0 a 19	14	10.4%
Average	20 a 29	0	0.0%
Good	30 a 45	120	89.6%
Total		134	100%

Source: self-developed database

Discussion

Perception is known as the knowledge, idea, or sensation that results from a material impression produced by the bodily senses.

In the article Public Perception of Chiropractic: A Survey, a 29-item survey was administered, related to any history of use of chiropractic, your opinion about chiropractic, risks or concerns regarding care, chiropractic education, among others. Of the 155 responses regarding satisfaction with chiropractic care, 81% were

satisfied with their treatment, 6% were dissatisfied, and 12% were unsure. Sixty-four percent (64%) of participants perceived chiropractic to be safe, 57% were interested in learning more, and 19% responded that they needed convincing to see a chiropractor. Concluding that participants were generally interested in chiropractic and had no real concerns about the risks or costs involved, although, there appears to be a lack of information available to the public to make them better informed about chiropractic. (10)

Based on the results obtained, we accept our alternative hypothesis, where the positive perception found is 90%, exceeding the 81% reported by other researchers. However, this is because most respondents were users of the chiropractic care service, therefore it is inferred that social service interns have provided patient education regarding the activities and professional functions of chiropractic.

On the other hand, 13 of the 14 participants who obtained a bad perception of chiropractic are non-users of the service, which tells us that the dissemination of the service is perhaps not the most appropriate because when they were asked what was the reason why they did not attend, the most common answers in descending order were: I didn't know about the service, Lacked information (I don't know what it is), fear, The opening hours do not fit my time and I am not interested in attending. According to "A Survey of the Public Perception of Chiropractic After Exposure to Chiropractic Public Place Marketing Events in New Zealand," a study conducted in New Zealand where public perception was measured after exposure to marketing events in public places, found that direct or indirect exposure to marketing events in public places can influence public perception of chiropractic, so we can infer that with the dissemination of information, public opinion can be modified. (12)

As for the participants, it is clear that the majority are female like the study carried out by Beliveau and collaborators where the majority of patients who consulted chiropractors were women, although unlike Beliveau had a median age of 43.4 years because their survey was applied to a more specific population, most of the population studied was between 17 and 27 years old, with the youngest participants being those who are concerned about the care of their spine. (11)

Regarding participation by faculties, in descending order, it was medicine, engineering, psychology, administration, and communication, with the faculty of medicine being the one with the best infrastructure in this service, so this affects the user's perception regarding the care process. On the other hand, knowledge is mainly

affected by the diffusion of information, that is, the amount of information to which a person is exposed regarding the topic.

Conclusions

Perception for the purposes of this work is interpreted as the knowledge, idea or sensation that results from a material impression produced by the bodily senses. The perception of the students of the Universidad Veracruzana is mostly acceptable, however, the level of knowledge in accumulated percentage among those who thought they had good and regular knowledge is 95%, which is 90% related to good perception. They correlate a lot in their percentage value.

It should be noted that, although the result obtained is good, it is relevant to continue this work to maintain the relevance and quality of the chiropractic care service, because as a health providers, we must strive to achieve 100% satisfaction and perception of users of chiropractic services.

The low participation of some faculties is evident, which is why more work was probably needed to disseminate information and encourage participation in these faculties. Likewise, the interest of the community is great, although there is still a percentage that does not know about the service or has misconceptions about the chiropractic service.

Finally, the results of receiving any type of care or attention are directly related to the reason for consultation, the number of visits, and adherence to the treatment.

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Access this Article in Online	
	Website: www.ijarm.com
	Subject: Medical Sciences
Quick Response Code	
DOI: 10.22192/ijamr.2023.10.10.003	

How to cite this article:

Salas-Ortega María del Refugio, Huerta-Cortes María de Jesús, Cuevas-López Areli, Zarco-Corona Adrian, Juárez-Soto María Estela. (2023). Perception of the chiropractic service of students of Universidad Veracruzana, Veracruz Region. *Int. J. Adv. Multidiscip. Res.* 10(10): 41-48.
DOI: <http://dx.doi.org/10.22192/ijamr.2023.10.10.003>