

Comprehensive evaluation of students of the last school year of the Bachelor of Chiropractic.

Helaman Saeed López-Hernández.^a

Assignment Professor

Martha Lilia León-Noris.^a

Full-time Professor

Jorge Elías Castillo-Hernández.^a

Academic Technician

Corresponding autor: HelamanSaeed López-Hernández

E-mail: helalopez@uv.mx

^aFacultad de Medicina, Campus Veracruz, Universidad Veracruzana, México.

Abstract

Background: Integral evaluation involves competing students, where theoretical aspects, skills and attitudes are integrated. The student of the Bachelor of Chiropractic must strengthen one of their competences indicated in the graduation profile: the evaluation, diagnosis and care of the factors causing biomechanical disorders of the spine and joints. The objective was to make a diagnosis of the students of the last school year to identify areas of opportunity that allow generate competitive professionals. **Material and Method:** 44 students of the last school year of the 3 generations that have graduated, prospective, observational, periods February-July 2018, August 2018-January 2019 and February-July 2019, with inclusión criteria. The statistical tool used was the SPSSv26. **Results:** 15 of the 44 students obtained an evaluation above 8, 25 between 6 and 7 of qualification, and 4 obtained a failing evaluation, being the theoretical capacity that represents the area of opportunity to establish strategies that allow articulation the theoretical with skills and attitudes.

Keywords

Chiropractic,
Comprehensive
Evaluation,
Competency

Introduction

Back pain problems, as well as accidents, both at home and at work have led to problems in the neuromusculo skeletal system. In addition to this, the COVID-19 pandemic and the conditions of the Home Office, has led both in children, youth and adults to a greater sedentary life style due to the excessive use of technological tools, such as computers, cell phones, video games, generating affectation ssuch as the carpal tunnel, low back pain, among others.

At the international level, De la cruz-Sánchez et al. (2012) carried out a study in Spain, pointing out that one of the most common pathologies in the elderly populationis back pain, a situation that has led to temporary work disabilities; also in Mexico, a study by Soto-Padilla et al. (2015), point sout the same condition.

Faced with such a situation, health professionals, including the chiropractor, need to pay attention to these types of problems to make the life style healthier and thus not impact the work place.

Under this scheme, educational institutions must provide society with competitive graduates who respond with commitment and responsibility to the current demands of society.

According to the National Development Plan 2019-2024 (Gobierno de México, 2019), itincorporates the right to health within its fundamental actions, so the link between higher education educational institutions with society is relevant, and It is in this space of contact between student-patient where the competencies of the health professional, in this case, the chiropractor, are further strengthened.

The Bachelor of Chiropractic is offered at the Universidad Veracruzana, one of the graduates competencies being the evaluation, diagnosis and attention of the factors causing biomechanical disorders of the spine and joints (Universidad Veracruzana, 2013), for this, in the last year students undergo a comprehensive evaluation

incorporating theoretical, practical and attitudinal aspects of the contents studied in their school career, since according to the competences approach and as pointed out by Tobón et al. (2006) and Ruiz Iglesias (2009) the evaluation by competences constitutes a change so that learning can be effective and that it responds to the health demands of society.

In chiropractic care, one of the supports of a diagnosis is the patient's X-rays, which allow with their interpretation to corroborate a diagnosis and from there make the decision of the treatment to follow.

There are several studies, such as Domínguez Gasca et al. (2018), where the importance of the correct interpretation of an X-ray is pointed out, as well as the clinical and laboratory data that the patient has for the correct decision- making in their care.

That is why the chiropractic profesional must have in-depth knowledge of imaging.

Other essential contents in their training are chiropractic techniques, each having different conditions such as low amplitude and high speed to perform a chiropractic adjustment (Organización Mundial de la Salud, 2005). It is in the clinical area where the patient is given care by the student, and based on the diagnosis, he selects and applies the techniques for the appropriate treatment. Like wise, it is there where the student links the theoretical aspects for their professional practice.

In addition, respect for the patient, commitment and ethics are incorporated in the interaction that occurs with the patient, explaining the procedure to follow.

Based on the above, students in the last year of the Bachelor of Chiropractic carryout a comprehensive evaluation that incorporates theoretical, practical and attitudinal aspects.

Material and Methods

Prospective, observational, in the periods February-July 2018, August 2018 - January 2019 and February - July 2019, students of three generations of the Bachelor of Chiropractic who studied clinical practice in those periods, with exclusion criteria (students who are not of the last school year, nor of the 3 generations). The results of the instrument of the rubric of the integral evaluation of the students were used considering theoretical, practical (chiropractic and

radiological techniques) and attitudinal aspects. For the statistical analysis, it was performed with the SPSS version 26.0 program.

Results and Discussion

The comprehensive evaluation identified that 6 students obtained a score of 7.8 and another 6 of 7.2, observing that 15 students go from the 8.10 to 9.3 score range, while 4 fall below a score of 6. (See table 1)

Table 1. Integral Evaluation

		Frequency	Percentage	Valid percentage	Accumulated percentage
Valid	5.50	1	2.3	2.3	2.3
	5.70	1	2.3	2.3	4.5
	5.90	2	4.5	4.5	9.1
	6.50	1	2.3	2.3	11.4
	6.80	3	6.8	6.8	18.2
	7.00	2	4.5	4.5	22.7
	7.20	6	13.6	13.6	36.4
	7.30	1	2.3	2.3	38.6
	7.40	1	2.3	2.3	40.9
	7.50	1	2.3	2.3	43.2
	7.60	2	4.5	4.5	47.7
	7.70	1	2.3	2.3	50.0
	7.80	6	13.6	13.6	63.6
	7.90	1	2.3	2.3	65.9
	8.10	2	4.5	4.5	70.5
	8.20	1	2.3	2.3	72.7
	8.30	1	2.3	2.3	75.0
	8.40	4	9.1	9.1	84.1
	8.50	2	4.5	4.5	88.6
	8.60	1	2.3	2.3	90.9
8.70	1	2.3	2.3	93.2	
9.00	1	2.3	2.3	95.5	
9.10	1	2.3	2.3	97.7	
9.30	1	2.3	2.3	100.0	
Total		44	100.0	100.0	

When performing the analysis, it is observed that in the theoretical evaluation 5 students of the 44 failed, having the highest score only 4 above the 8 rating, a situation that reflects the need to strengthen said knowledge in their transit through the curriculum. Regarding the practical evaluation of chiropractic and radiological techniques, in the case of the first one, it is identified that 3 students failed and 21 of the 44 obtained a score above 8, which shows a greater capacity in the

management of the techniques. In radiology, 29 of the 44 students are above 8 in qualification, none of them failing this section, in addition, attitudes such as respect for the patient, commitment and ethics are incorporated in said evaluation.

With the above, it is reflected that there is a deficient cognitive integration between the theoretical aspects with the practice. (See Table 2)

Table 2. Theoretical and Practical Evaluation

Theoretical Evaluation					
		Frequency	Percentage	Valid percentage	Accumulated percentage
Valid	2.40	1	2.3	2.3	2.3
	4.10	1	2.3	2.3	4.5
	4.80	1	2.3	2.3	6.8
	5.00	2	4.5	4.5	11.4
	6.00	3	6.8	6.8	18.2
	6.10	1	2.3	2.3	20.5
	6.20	4	9.1	9.1	29.5
	6.30	1	2.3	2.3	31.8
	6.40	2	4.5	4.5	36.4
	6.50	4	9.1	9.1	45.5
	6.70	1	2.3	2.3	47.7
	6.80	2	4.5	4.5	52.3
	7.10	2	4.5	4.5	56.8
	7.20	4	9.1	9.1	65.9
	7.50	3	6.8	6.8	72.7
	7.60	2	4.5	4.5	77.3
	7.70	4	9.1	9.1	86.4
	7.80	2	4.5	4.5	90.9
	8.00	1	2.3	2.3	93.2
	8.20	1	2.3	2.3	95.5
	8.30	1	2.3	2.3	97.7
	9.00	1	2.3	2.3	100.0
Total		44	100.0	100.0	

Practical Evaluation –Chiropractic Technique

		Frequency	Percentage	Valid percentage	Accumulated percentage
Valid	5.20	2	4.5	4.5	4.5
	5.80	1	2.3	2.3	6.8
	6.00	2	4.5	4.5	11.4
	6.10	1	2.3	2.3	13.6
	6.40	1	2.3	2.3	15.9
	6.50	3	6.8	6.8	22.7
	6.80	2	4.5	4.5	27.3
	7.00	6	13.6	13.6	40.9
	7.10	2	4.5	4.5	45.5
	7.20	1	2.3	2.3	47.7
	7.30	1	2.3	2.3	50.0
	7.50	1	2.3	2.3	52.3
	8.00	12	27.3	27.3	79.5
	8.10	2	4.5	4.5	84.1
	8.40	1	2.3	2.3	86.4
	9.00	6	13.6	13.6	100.0
	Total	44	100.0	100.0	

Practical Evaluation-Radiology

		Frequency	Percentage	Valid percentage	Accumulated percentage
Valid	6.00	4	9.1	9.1	9.1
	6.50	2	4.5	4.5	13.6
	7.00	9	20.5	20.5	34.1
	8.00	14	31.8	31.8	65.9
	8.50	1	2.3	2.3	68.2
	9.00	9	20.5	20.5	88.6
	9.50	3	6.8	6.8	95.5
	10.00	2	4.5	4.5	100.0
	Total	44	100.0	100.0	

Conclusions

Of the 44 students, 15 were identified as above 8, 25 between 6 and 7.0 and 4 failed, observing that the lowest values were in the theoretical evaluation. This represents an area of opportunity to make a review with the corresponding academy

in the search for strategies that promote theoretical knowledge which must be articulated in the skills and attitudes of the student in order to strengthen their skills in this case: the evaluation, diagnosis and care of the factors causing biomechanical disorders of the spine and joints.

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Access this Article in Online	
	Website: www.ijarm.com
	Subject: Medical Sciences
Quick Response Code	
DOI: 10.22192/ijamr.2021.08.11.008	

How to cite this article:

Helaman Saeed López-Hernández, Martha Lilia León-Noris, Jorge Elías Castillo-Hernández. (2021). Comprehensive evaluation of students of the last school year of the Bachelor of Chiropractic. *Int. J. Adv. Multidiscip. Res.* 8(11): 85-90.
DOI: <https://dx.doi.org/10.22192/ijamr.2021.08.11.008>