

Analysis of scientific articles in medical students



Medicine

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ABSTRACT

Introduction. Research in health is recognized as a substantial element of medical education, being this priority given the great progress in health. Objective. To determine the level of knowledge on analysis of the structure of scientific articles in students of the Degree in Medicine of the School of Health Sciences of the Universidad del Valle de México, Campus Villahermosa. Methodology. An observational, descriptive, cross-sectional and prospective study was carried out in students of the Licentiate in Medicine in December of 2016. Results. 100 students aged 20 ± 2.94 years were interviewed; Where the major identified was the sample (60%) and the least were the parametric measurements (15%). Conclusion. Most of the students failed to determine the basic areas of a scientific article.

Introduction

Ángel et al. (2010) implemented surveys to know the degree of interest that students have towards research, where 21.05% reported being involved in carrying out or executing research projects. (Ángel Isaza, y otros, 2010).

In a competitive way, higher education institutions are focused on developing strategies implemented in their student community for the improvement and scientific production from the training of undergraduate students (Cabrera Enríquez, y otros, 2013); the power to carry out research projects implies the intentional search for updated, reliable and methodological quality information (Plazas, Gómez, & Castro, 2013).

Health research is recognized as a substantial element of medical education, being this a priority, however it has been observed that scientific publications by undergraduate students are in a smaller proportion. (Sánchez Mendiola, 2015).

Once the research and research knowledge has been consolidated in the students, it is expected that the number of scientific journals will increase from the undergraduate stage. (Cabrera Samith, Oróstegui Pinilla, Ángulo Bazán, Mayta Tristán, & Rodríguez Morales, 2010).

One of the limitations observed by which students do not issue scientific publications is given to the lack of research advisers that can guide towards the slopes where scientific productivity should be directed. (Taype Rondá, Huaccho Rojas, & Guzmán, 2011), (Ortega Loubon, y otros, 2013).

Students of the School of Obstetrics of the Faculty of Medicine of the National University of San Marcos in 2009, 78.8% of the population had low knowledge on search strategies. (Huamani Navarro, Alegría Delgado, López Sánchez, Tarqui Mamani, & Ormeño Caisafana, 2011), Being this fundamental of all progress, directly in the decision making from the results obtained and the synthesis that provides. (Cabezas Sánchez, 2010)

In 2011, in Mexico, the Federal Expenditure on Science and Technology amounted to 58,810 million pesos; Among the activities that obtained the greatest amount of resources, was Scientific Research and Experimental Development, representing 61.8 percent, followed by Education and Scientific and Technological Education (EECYT) with 23 percent and Scientific and Technological Services (SCyT) With 10.8 percent of total spending. (Consejo Nacional de Ciencia y Tecnología, 2012), (Osada, Ruiz Grosso, & Ramos, 2010).

Therefore, the objective of this study was to determine the level of knowledge about the analysis of the structure of scientific articles held by students of the Licentiate in Medicine of the Universidad del Valle de México, Campus Villahermosa, from December 9 to 13 2016

Methodology

Study design

An observational, descriptive, cross-sectional and prospective study was carried out with students of the Licentiate in Medicine of the School of Health Sciences of the Universidad del Valle de México, Campus Villahermosa from December 9 to 13, 2016.

Universe, Sample and Sampling

The universe will be made up of all enrolled students, selected through non-probabilistic sampling for convenience.

Criteria

Inclusion: enrolled students, regardless of gender or age, exclusion: Students who do not agree to participate in the study. Elimination: students who have been discharged, incomplete questionnaire, who receive help to answer the questionnaire.

Data collection plan

A questionnaire of 38 items was carried out to analyze variables of identification of sections in scientific articles, with scientific articles being given, to indicate the sections of the instrument of data collection.

Statistical analysis plan

Data collection was analyzed using Microsoft Excel®, SPSS version 23®.

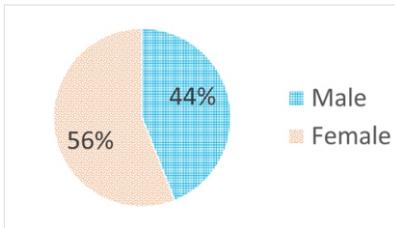
Ethical Considerations

The present study consisted in determining the analysis of the sections of scientific articles in medical students governed by the General Health Law Title Fifth Article 99. (Secretaria, 2016), the participants signed prior informed consent. The project was approved by the ethics and research committee of the Universidad del Valle de México Campus Villahermosa.

Results

We interviewed 100 students, of whom 56 were female (56%), and 44 were male (44%), with ages of 20 ± 2.94 years. Figure 1.

Figure 1. Gender of medical students



Source: Analysis of scientific articles in medical students

As for the most identified sections is the sample (60%) temporality (50%), universe and variable. Among the least successful are the styles of bibliographical references (30%) and parametric measures (15%).

Section to describe:	Correct answer	
	Yes	No
variable	45	55
Study design	35	65
temporality	50	50
universe	45	55
sampling	30	70
sample	60	40
Parametric measurements	15	85
discussion	43	57
Reference style	30	70

Source: Analysis of scientific articles in medical students

Discussion

In Peru, Taype et al (2011) carried out a survey of 26 presidents of student societies of Scientific Societies of Medical Students, finding that only 38.5% had knowledge about biostatistics in order to carry out a research project. Compared with this study, only 15% were able to identify parametric and non-parametric measures used for hypothesis selection.

Cabrera et al. (2013) reported that one of the characteristics for which students did not perform research was because they had deficiencies in the subjects of knowledge about statistical programs (44.6%) followed by an adequate selection of statistical test (28.7%).

In relation to the present, 60% places the sample within a scientific article, however 70% did not know the type of sampling implemented in the scientific articles and 70% stated not knowing how to write the article in APA format. We found similarities in some deficiencies which might suggest why students do not carry out research because they are not aware in the first instance of the parts that articulate the scientific articles which are necessary for the guiding and grounding of any project.

Conclusion

It is necessary that the student community can discern the areas that make up the scientific articles given that these are the vital resource to be up to date and able to carry out scientific research that brings value to the community and knowledge. A minimal part of the population is able to denote parametric tests, even though they are of great value within a scientific article, where they must be of great management in the university community.

References:

1. Ángel Isaza, A. M., Botero Suárez, H. F., González, D. C., Piedad Ospina, L., Velasco, M., & Ocampo, M. F. (2010). Interés de los estudiantes de medicina por la Investigación. *Ciencia e Investigación Médico Estudiantil Latinoamericana*, 15(1), 9-13.
2. Cabezas Sánchez, C. (2010). Necesidad de la investigación en salud para contribuir a la equidad, la salud y el desarrollo. *Revista Peruana de Medicina Experimental y Salud Pública*, 27(3), 310-11.
3. Cabrera Enríquez, J. A., Cruzado Mendoza, M., Cruzado Mendoza, N., López Samanamú, R. O., Lajo Aurazo, Y., & Peña Sánchez, E. R. (2013). Factores asociados con el nivel de conocimientos y la actitud hacia la investigación en estudiantes de medicina en Perú, 2011. *Revista Panamericana de Salud Pública*, 33(3), 166-173.
4. Cabrera Samith, J., Oróstegui Pinilla, D., Ángulo Bazán, Y., Mayta Tristán, P., & Rodríguez Morales, A. J. (2010). *Revistas científicas de estudiantes de medicina en*

- Latinoamérica. *Revista médica de Chile*, 138, 1451-1455.
5. Consejo Nacional de Ciencia y Tecnología. (2012). Seguimiento del programa especial de ciencia, tecnología e innovación (PECITI) 2008-2012.
6. Huamani Navarro, M., Alegria Delgado, D., López Sánchez, M., Tarqui Mamani, C., & Ormeño Caisafana, L. (2011). Conocimientos, prácticas y habilidades sobre la búsqueda Bibliográfica y percepción estudiantil sobre la capacitación universitaria en investigación, en estudiantes de obstetricia. *Educación Médica*, 14(4), 235-240.
7. Ortega Loubon, C., Zúñiga Cisneros, J., Yau, A., Castro, F., Barria Castro, J. M., & Lalyre, A. (2013). Producción científica de los estudiantes de medicina de la Universidad de Panamá. *Archivos de Medicina*, 9(3), 1-9.
8. Osada, J., Ruiz Grosso, P., & Ramos, M. (2010). Estudiantes De Pregrado: El Futuro De La Investigación. *Revista Peruana de Medicina Experimental y Salud Pública*, 2, 301-306.
9. Plazas, M., Gómez, M., & Castro, C. A. (2013). Actitud en estudiantes de Ciencias de. *Revista Ciencias de la Salud*, 11(1), 83-91.
10. Sánchez Mendiola, M. (2015). Apreciación sobre capacitación en investigación y. *Investigación en Educación medica publicación científica en estudiantes universitarios*, 4(1), 50-51.
11. Secretaria, S. (2016). Ley General de Salud DOF 01-06-2016.
12. Taype Rondá, A., Huaccho Rojas, J., & Guzmán, L. (2011). Sociedades Científicas De Estudiantes De Medicina En El Perú: Situación Actual Y Perspectivas Futuras. *Ciencia e Investigación Médico Estudiantil Latinoamericana*, 16(2), 90-95.