

## Analisis Transversal de Intercambio Internacional de Estudiantes de Medicina Colombianos

### Transversal Analysis of International Colombian Medical Student Exchange

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#### Abstract

**Introduction:** History has shown that international exchanges and academic mobilization have become an important component in Medical Schools all around the world. In Colombia, Medical Faculties recognize the Scientific Association of Medical Students from Colombia (ASCEMCO) as a strategic ally. It is necessary to analyze how many medical students get an international exchange every year in order to improve institutional politics and create new strategies to keep promoting exchanges to students from our country and all around the world.

**Material and Methods** This study is a cross-sectional observational study in Colombian medical student population, which had an international exchange through SCOPE or SCORE from IFMSA, from 2015 to 2017. The data was obtained from IFMSA where 17 exchanges were through SCORE while 486 belongs to SCOPE. **Results.** The total population in the study was 503 medical students. After coding and analyzing the data, we found that the students who got an international exchange were affiliated or related somehow to ASCEMCO. Data states that out of 486 medical students who got an exchange, 70% (341 students) chose America as their preferred destination, followed by Europe with the 21.8% (102 students), and Africa and Asia with 4.5% (22 students) each. **Conclusion.** Consequently, it is necessary to analyze Medical Faculties curriculum in the world in order to introduce exchange programs in countries in which the language is different from their native language.

#### Keywords:

Medical Students, Medicine, international exchanges, medical schools.

#### Resumen

**Introducción.** La historia ha demostrado que los intercambios internacionales y la movilización académica se han convertido en un componente importante en las Escuelas de Medicina de todo el mundo. En Colombia, las facultades de medicina reconocen a la Asociación Científica de Estudiantes de Medicina de Colombia (ASCEMCO) como un aliado estratégico. Es necesario analizar cuántos estudiantes de medicina obtienen un intercambio internacional cada año para mejorar la política institucional y crear nuevas estrategias para seguir promoviendo intercambios a estudiantes de nuestro país y de todo el mundo. **Material y métodos.** Este estudio es un estudio observacional transversal en población de estudiantes de medicina colombianos, que tuvo un intercambio internacional a través de SCOPE o SCORE de IFMSA, de 2015 a 2017. Los datos se obtuvieron de IFMSA donde 17 intercambios fueron a través de SCORE mientras 486 pertenecen a SCOPE.

**Resultados.** La población total en el estudio fue de 503 estudiantes de medicina. Después de codificar y analizar los datos, descubrimos que los estudiantes que obtuvieron un intercambio internacional estaban afiliados o relacionados de alguna manera con ASCEMCO. Los datos indican que de 486 estudiantes de medicina que obtuvieron un intercambio, el 70% (341 estudiantes) eligió América como su destino preferido, seguido de Europa con el 21.8% (102 estudiantes) y África y Asia con 4.5% (22 estudiantes) cada uno. **Conclusión.** En consecuencia, es necesario analizar el currículo de facultades médicas en el mundo para introducir programas de intercambio en países en los que el idioma es diferente de su lengua materna.

#### Palabras clave:

Estudiantes de Medicina, Medicina, Intercambios Internacionales, Escuelas de Medicina.

#### INTRODUCTION

History has shown that international exchanges and Academic mobilization have become an important component in Medical Schools all around the world<sup>1-3</sup> Now days it is one of the most common ways to show of schools in different levels: regional, national and international.<sup>4</sup> In Colombia, Medical Faculties recogni-

ze the Scientific Association of Medical Students from Colombia (ASCEMCO) as a strategic ally. It has 38 Local Associations (AL)<sup>5</sup> that affiliates most of the Medical Students around the country. Being a member of ASCEMCO has become one of the previous steps to take advantage of the international opportunities that the

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Permanent take advantage of the international opportunities that the Permanent Committee of International Relationships and Exchange from the Latin-American Federation of Scientific Societies (FELSOCEM) <sup>6</sup>, and Standing Committee of Professional Exchanges (SCOPE) and Research Exchanges (SCORE) <sup>8</sup> from the International Federation of Medical Students (IFMSA) <sup>7</sup> have. They have allowed Colombian medical students to do clinical or research exchanges at a low price with a recognition from the university and their chairmen <sup>4 8</sup>. It is necessary to analyze how many medical students get an international exchange every year in order to improve institutional politics and create new strategies to keep promoting exchanges to students from our country and all around the world.

## MATERIAL AND METHODS

This study is a cross-sectional observational study in Colombian medical student population, which had an international exchange through SCOPE or SCORE from IFMSA, from 2015 to 2017. The total population in the study was 503 medical students. The data was obtained from IFMSA where 17 exchanges were through SCORE while 486 belongs to SCOPE. The survey had the following variables: University, Local Association (LA), country of origin and destination [National Medical Organization (NMO)]. Medical students, Local Exchange Official (LEO) and Local Official Research Exchange (LORE) collected the data. (**TABLE 1 and TABLE 2**)

Inclusion criteria: Every medical student from Colombia who obtained an exchange through ASCEMCOL. Exclusion Criteria: Medical student who obtained or not an exchange through IFMSA without relation to ASCEMCOL.

Categorical variables were summarized as proportion (%) or prevalence (%) with its correspondent confidence interval (IC 95%). The data was digitalized in to Excel 2010 data base using the defined variables. Then, all the data was processed using Epi-Info 7.0 free software. Data was processed with the exchange students and ASCEMCOL consent.

## RESULTS

The total population in the study was 503 medical students. After coding and analyzing the data, we found that the students who got an international exchange were affiliated or related somehow to ASCEMCOL. SCORE data has shown that 41.17% (7 medical students) study at National University of Colombia, 11.7% study at Tolima University, 5.88% (1 medical student) studies at Manizales University, 5.88% (1 medical student) studies at Surcolombiana University, 5.88% (1 student) studies at Free Cali University, el 5.88% (1 medical student) studies at Santander University, 5.88% (1 student) studies at Central Valley University, 5.88% (1 student) studies at Technological and Pedagogical University of Colombia, 5.88% (1 student) studies at Valley University. Also, SCOPE data showed that their exchanges were more demanded by medical students in comparison to SCORE (**FIGURE 2**).

Data states that out of 486 medical students who got an exchange, 70% (341 students) chose America as their preferred destination, followed by Europe with the 21.8% (102 students), and Africa and Asia with 4.5% (22 students) each. The most popular destinations on the American continent was Peru with 95 students (19% out of total), followed by Mexico with 75 students (15.5 %) and Brazil with 52 students (10%); while in Europe 25 students (5.1%) chose Italy as their destination, 19 students (3.9%) Germany and 10 students (2.05%) Sweden; Egypt, Africa, was the main destination with 11 students (2.2%). (**FIGURE 1**)

**Table 1.** Research exchange SCORE (2015-2017)

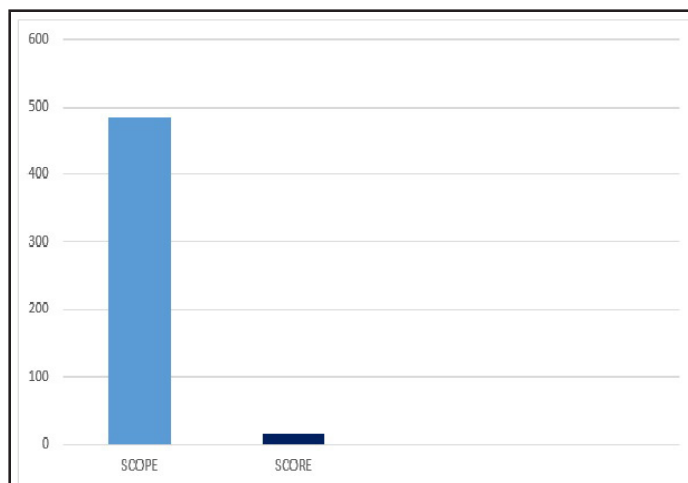
University (city)	Local Associations	Country of origin	Destination country (NMO)
Universidad del Quindío. (Armenia)	ASEIUMUQ	Colombia	Germany (BVMD)
Universidad Nacional de Colombia. (Bogotá D.C)	ACEMUNAL	Colombia	Poland (IFMSA-Poland)
Universidad Nacional de Colombia. (Bogotá D.C)	ACEMUNAL	Colombia	Brazil (Brazil-DEMEN)
Universidad Nacional de Colombia. (Bogotá D.C)	ACEMUNAL	Colombia	Brazil (IFMSA- Brazil)
Universidad Nacional de Colombia. (Bogotá D.C)	ACEMUNAL	Colombia	Mexico (IFMSA- Mexico)
Universidad Nacional de Colombia. (Bogotá D.C)	ACEMUNAL	Colombia	Germany (BVMD)
Universidad Nacional de Colombia. (Bogotá D.C)	ACEMUNAL	Colombia	Italy (SISM)
Universidad del Tolima (Ibagué).	ACEMTOL	Colombia	Mexico (IFMSA- Mexico)
Universidad de Manizales (Manizales)	ACEMED UM	Colombia	Mexico (IFMSA- Mexico)
Universidad Surcolombia (Neiva)	OCEMSUR	Colombia	Germany (BVMD)
Universidad Libre de Cali (Cali)	ACEMLI	Colombia	Chile (IFMSA-Chile)
Universidad Industrial de Santander (Búcamanga)	SEIMED UIS.	Colombia	Paraguay (IFMSA-Paraguay)
Universidad Pedagógica y Tecnológica de Colombia (Tunja)	ACEMED UTPC	Colombia	Mexico (IFMSA-Mexico)
Universidad del Valle (Cali)	ACEMVAL	Colombia	Mexico (IFMSA-Mexico)
Unidad Central del Valle del Cauca (Tulua)	ACEMUCEVA	Colombia	Mexico (IFMSA-Mexico)



**Graphic 1.** Geographic distribution of the main destinies chosen by Colombian medical students who did an international exchange from 2015 to 2017 Reference. Authors.

**Table 2.** Research exchange SCORE (2015-2017)

Country of origin	Destination country	Number of ex- changed students
Colombia	Costa Rica	2
	Catalonia	7
	Ecuador	17
	United States of America	1
	Austria	3
	France	8
	Peru	94
	Guatemala	1
	Tunisia	4
	Germany	19
	Canada	2
	Brazil	52
	Venezuela	9
	Ghana	2
	Israel	2
	Finland	2
	Rusia	1
	Greece	2
	Egypt	11
	Bolivia	13
	The Czech Republic	5
	El salvador	25
	Argentina	4
	Chile	30
	Japon	1
	Iraq	1
	Mexico	75
	Netherlands	8
	Palestine	2
	Panama	11
	Paraguay	1
	Poand	5
	Serbia	1
	Spain	6
	Uruguay	2
	Denmark	4
	Iran	1
	Sudan	2
	Malta	2
	Dominican Republic	2
	Portugal	5
	Bosnia y Herzegovina	2
	Italy	25
	Sweden	10
	Morocco	1
	Turkey	3


**Graphic 2.** Comparison between SCORE – SCOPE from 2015 to 2017.

## DISCUSIÓN

International exchanges are an immense value to Medical Faculties curriculum all around the world<sup>9</sup>. To travel to another country, live during a period of time surrounded by a new culture<sup>10</sup>, learn innovative ways of doctor patient relationships, new medical procedures and protocols that could be used in your origin country, become an integral physicians<sup>11, 12</sup> are some of the opportunities this program gives you. In our study during two years we analyzed medical students who did exchange programs through IMFSA platform.

This Federation congregates all the countries all around the world and therefore most of medical students. This is the biggest collaborative red to create a better world<sup>13</sup>. It is Standing Committees as SCORE and SCOPE offered the international exchanges and as we found Colombian medical students in which the language is different from their native preferred to experience their research exchanges. Since, there are few research programs in medical faculties in our country. Also, many Universities do not focus their curriculums on research and their chairman does not set a research example either<sup>15</sup>. In Colombia, research itself is seen as a blurry option to advocate their life into<sup>16</sup>. However with developed countries where this is the main goal to be taught within Medical Schools to create physician researchers<sup>17</sup>. Another challenge to be considered is that the language required to do an international exchange is English. It has become the scientific language in the world, according to the National Planning Department. In Colombia, only 1.2 million people speak English and only 54% of them are certified (TOEFL OR IELTS).

language. Also, Fyrthermore, according to Bilingual Colombia program from the Education Ministry, it was estimated that for 2018, only the 8% of bachelors will have an intermediate B1 English level. Being necessary to improve the existing programs and set English as mandatory language. These two challenges have led medical students to choose their international exchange in countries where the main language is Spanish. As we saw, in Latin-America, Peru is the Country that has been chosen the most to do an exchange program followed by Mexico and Brazil. In Europe, the most requested country to do exchange is Italy, then followed by Germany. In order to do the program in these countries, it is requested to know 3 languages: their native one, English and Italian or German. In addition, all around the world, medical students are expected to be able to understand human beings as whole and to adapt themselves to any culture easily<sup>21</sup>.

in their international exchanges. Finally, student's organizations as However, if Medical Faculties do not give them the right tools and do not support their organizations, they will lose the opportunity to get benefits from them and it could create a new generation of physicians that are in lack of a global thinking<sup>13</sup>, interested in science and knowledge of innovative ways to improve mankind quality of life<sup>22</sup>. The study presents information bias since it is a platform that only covers the information provided by the medical students assigned to this area.

## CONCLUSION

Consequently, it is necessary to analyze Medical Faculties curriculum in the world in order to introduce exchange programs in countries we have to let students to learn different languages that can be used in their ASCEMCOL, FELSOCM and IFMSA should consolidate as great allies in favor of creating integrated and global physicians that can speak up and collaborate to create a better world.

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