

## GENERAL OVERVIEW OF ACADEMIC PRODUCTION IN IBERO-AMERICAN PSYCHOLOGY, 2005-2007<sup>2</sup>

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*This study offers a general overview of academic production in Psychology based on the analysis of a sample of articles published between 2005 and 2007 in the Psychology Journals covered by PsicoRedalyc. The analysis showed that three out of four articles are written in collaboration. Most articles show high levels of institutional endogamy and low levels of international collaboration. The production rate of most authors (80.9%) is one article every three years. A small percentage of authors are responsible for a high percentage of the contributions. Finally, the study shows that authors tend to publish, or be published, mostly in their own countries, which may indicate low levels of article internationalization, or high levels of national endogamy in the journals. The results suggest that research networks should be strengthened and that publication in journals from other countries should be fostered.*

**Key words:** scientometrics, Iberoamerica, scientific journals, research, Psychology.

*Este estudio presenta un panorama general de la producción académica en el campo de la psicología, a partir del análisis de una muestra de artículos publicados entre 2005 y 2007 en las revistas de Psicología indexadas por PsicoRedalyc. A partir del análisis fue posible identificar que 3 de cada 4 artículos son escritos en colaboración. La mayoría de los artículos presentan un alto nivel de endogamia a nivel institucional y unos bajos niveles de colaboración internacional. La tasa de producción de la mayoría de los autores (80.9%) es de una contribución en un periodo de 3 años. De la misma manera un pequeño porcentaje de autores dan cuenta de un muy alto porcentaje de las contribuciones. Finalmente este estudio muestra que los autores tienden a publicar o ser publicados en sus propios países en su gran mayoría, lo cual podría indicar bajos niveles de internacionalización de los artículos o altos niveles de endogamia nacional en las revistas. Todos estos resultados sugieren que es necesario fortalecer las redes de investigación e incentivar la publicación en revistas por de otros países.*

**Palabras clave:** Cienciometría, Iberoamérica, Revistas científicas, Investigación, Psicología.

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**S**cientific research in Ibero-America, despite its spectacular development in the last few years, continues to be marginal owing to numerous factors that depend as much on academics as on management systems and use of knowledge: a relatively low number of contributions, little time dedicated to publication on the part of academic staff and research centers, the low quality of some research, the endogamy of journals and institutions, the low level of international cooperation, the lack of knowledge on the part of researchers from other countries about Ibero-American research (Ochoa Henríquez, 2004) and excessive publication in Spanish and Portuguese. All these factors make a framework of reasons that maintain the low production figures and impact of knowledge produced in the region (Buela-Casal & López, García-Cepero, Aguilar Bustamante, Silva & Aguado, in press).



As a consequence, Ibero-American journals are faced with the challenge of obtaining visibility and impact given that their permanence and influence in large international databases depends on it. At the same time, this presence constitutes the necessary condition to feed back the impact, as the probabilities of citations are increased. A positive element has been the recent findings by Navarrete-Cortés, Fernández-López, López-Baena, Quevedo-Blasco and Buela-Casal (2010), who identified a positive performance in the matter of publications in countries such as Spain and Colombia in the first five journals of Journal Citation Reports. However, this performance has not proven to be sufficiently consolidated to be considered a general performance description for the countries of the region in international databases.

For several years, a great number of researchers and groups have been dedicated to the characterization of the world of publication in Ibero-America with a view to promoting its visibility and to discovering and attacking the factors responsible for the region's marginal contribution in the context of international science. In the case of psychology, there have been works regarding the relation between the development of the discipline and that of the journals (for example Tortosa, 1989), the international nature or international participation in the articles (for example Buela-Casal, Zych, Sierra & Bermudez, 2009; Zych & Buela-Casal, 2007, 2010), the impact (for example Buela-Casal, Medina, Viedma, Godoy, Lozano & Torres, 2004; Navarrete-Cortés, Quevedo-Blanco, Chaichio-Moreno, Rios & Buela-Casal, 2009); Villalobos-Galvis & Puertas-Campanario, 2007), their evolution over time (Alcaín Patarroyo & Ruiz-Gálvez Papí, 2008b) and the thematic tendencies and focus at a professional level (for example, Alcaín Patarroyo & Ruiz-Gálvez Papí, 1998a; Ortiz & Vera-Villaroel, 2003; Rey-Anacona, Martínez & Guerrero, 2009; Belinchón Carmona, Boada Muñoz, García de Andrés, Fuentes Biggi & Posada de la Paz, 2010).

The present article aims to present a general panorama of the academic production in the field of psychology, based on an analysis of a sample of 2,781 articles published between the years 2005 and 2007 in the Psychology journals indexed by Redalyc (PsicoRedalyc). All the articles available in this Information System corresponding to the selected time period are included. The intention is to construct new knowledge about the tradition of bibliometric research itself inaugurated by

other works whose objective is to characterize regional scientific development based on studies about publications (for example, De Moya-Anegón, Vargas-Quesada, Chinchilla-Rodríguez, Corera-Alvarez, González-Molina & Muñoz-Fernández, 2006; Vargas-Quesada, De Moya-Anegón, Chinchilla-Rodríguez, Corera-Alvarez & Guerrero-Bote, 2008).

## METHOD

The methodology employed is the same as that used in a similar in-depth contribution for Colombia (López-López, García-Cepero, Aguilar Bustamante, Silva & Aguado, in press). It consisted in using an article database with metadata information of the same, for which a manual purification of the PsicoRedalyc data was performed due to the difficulties in the standardization of metadata in journals that give as a result that one same author may be considered as two different authors, given that the way that the author's name is reported in two journals may not be the same. The manual purification described meant the standardization of country names, institutions and authors.

Although all the journals present in the system were revised, only those that contained articles from the three-year observation period (2005-2007) were analyzed. In the case of this analysis, two different units of measurement were used: the article, which corresponded to an indexed document in PsicoRedalyc, and the "contribution", which is explained better with an example: when an article has only one author, that article has one contributor, but when an article has more than one author, the article will have as many contributions as there are different authors. This last unit was used to be able to identify the magnitude of collaboration among authors, institutions and countries. The term "contribution" should not be conceived of as evaluative as it does not refer to the relevance or importance of the contribution.

## RESULTS

The first part of this results section aims to characterize the article population in terms of number, distribution in journals included in the system, institutional affiliation, and the number and origin of the authors who participated in its production. For this reason, it is, above all, a descriptive analysis of the analyzed articles.

For this section of the analysis, a count of the articles and contributors by country, institution and author between 2005 and 2007 was made. In Table 2, the number of



articles included (2781) in PsicoRedalyc and discriminated by year of publication, is shown. Said articles proceed from 35 different journals of the 40 publications that can currently be accessed through Redalyc. The five journals that were excluded did not contain the numbers and articles for the time period required for the analysis.

Most of the articles were published in journals from Spain, Colombia and Brazil (75%). The rest of the articles were published in Mexican, Chilean, Argentinian and Peruvian journals. As shown, there is only one journal classified as Latino-American, because the editing country changes every few years (Table 2). It is the specific case of the Inter-American Journal of Psychology - SIP -.

In Table 3, the contribution of each journal in the sample is shown, as well as the journal's country of origin and its editing institution, in alphabetical order. As previously mentioned, the analysis was performed with a total of 35 journals. As shown on Table 3, the journal Psicothema is the one with the greatest number of articles (358, which represents 12.9% of the total of articles analyzed, publication edited in Spain by the University of Oviedo) followed by the journal published by the Pontificia University Javeriana of Colombia, Universitas Psychologica (131 articles, 4.7%).

	Frequency	Percentage
2005	828	30%
2006	937	34%
2007	1016	36%
<b>Total</b>	<b>2781</b>	<b>100%</b>

Country of origin of journal	Number of articles	Percentage of articles
Spain	884	31.8
Colombia	629	22.6
Brazil	622	22.4
Mexico	236	8.5
Chile	183	6.6
Latino-Americans*	128	4.6
Argentina	89	3.2
Peru	11	0.4
<b>Total</b>	<b>2782</b>	<b>100</b>

An important indicator of visibility has to do with international collaboration, and is reflected in the countries of origin of the journals as well as the institutions and authors that participate in each article. When the country of origin is examined for *the contributions*, as can be done through Table 4, it can be observed that, for example, there is a very high level of endogamy in the Brazilian journals (1,163 contributions from the country itself and very few contributions by authors from other countries, except from Portugal, where 136 contribution by authors are presented, probably due to language affinity). It is noteworthy that Colombia, in particular, and Spain exhibit a high level of exogamy.

The evidence shows that most authors tend to publish or be published in their own countries, which could indicate low levels of internationalization of the articles or high levels of national endogamy in the journals. The countries with the greatest number of contributions are, listed from highest to lowest, Spain (2,067), Brazil (1,163) and Colombia (966).

An analysis by author helps to complete the information about collaboration when publishing and exposes the great heterogeneity of the contributions at the institutional level and in the number of collaborators. In the observed period, 5,302 articles by different authors were analyzed. It is important to remember that a contribution is understood here as the participation of one author, institution or country, and that the number of contributors does not correspond to the number of articles by the number of different authors, as the articles by more than one author, of course, include more than one contribution. This approximation permits the identification of intra- and inter-institutional and international collaboration.

The 5,302 different authors belong to 941 institutions. Twenty-five point six percent of the articles are written by a single author, 31.6% written by two authors, 20.3% written by three authors and the remaining 22.5% are written by four or more authors. The aforementioned shows that approximately three out of every four articles are written in collaboration. Nearly 74.4% of the articles are written by two or more authors, which could lead us to believe that there exists a scientific production more associated to groups than to individuals, although, thus far, the evidence does not empirically support said conclusion. As shown in Table 5, said proportion varies little throughout the observed period.

Notwithstanding the previously mentioned diversity, the great majority (60%) of the articles are developed inside

a single institution in spite of having multiple collaborators. Of course, 30% are developed with the collaboration of two or more institutions (Table 6). The article population analyzed contains 22 independent authors who have no registered institutional affiliation.

In total, the articles examined come from 49 different

countries. The country of origin of the institutions responsible for a small number of articles could not be determined. In terms of collaboration, it is important to mention that in 92% of cases, said institutions belong to the same country, with which, a low level of international collaboration is revealed.

**TABLE 3**  
**DESCRIPTIVE ANALYSIS BY JOURNAL**

Journal's name	Frequency of articles	Percentage of sample	Journal's country of origin	Journal's editing institution
Acta Colombiana de Psicología	75	2.7%	Colombia	Universidad Católica de Colombia
Anales de Psicología	107	3.8%	Spain	Universidad de Murcia
Avances en Psicología Latinoamericana	39	1.4%	Colombia	Universidad del Rosario
Boletim Academia Paulista de Psicologia	71	2.6%	Brazil	Academia Paulista de Psicologia
Diversitas. Perspectivas en psicología	23	0.8%	Colombia	Universidad Santo Tomás
Enseñanza e Investigación en Psicología	68	2.4%	Mexico	Universidad Veracruzana
Estudos de Psicologia	116	4.2%	Brazil	Universidade Federal do Rio Grande do Norte
Fundamentos en Humanidades	66	2.4%	Argentina	Universidad Nacional de San Luis
Inter-American Journal of Psychology	128	4.6%	Latino-Americana	Sociedad Interamericana de Psicología
Interdisciplinaria	23	0.8%	Argentina	Centro Interamericano de Investigaciones Psicológicas y Ciencias Afines
International Journal of Clinical and Health Psychology	128	4.6%	Spain	Asociación Española de Psicología Conductual
International Journal of Psychology and Psychological Therapy	67	2.4%	Spain	Universidad de Almería
Liberabit. Revista de Psicología	11	0.4%	Peru	Universidad de San Martín de Porres
Mental	58	2.1%	Brazil	Universidade Presidente Antônio Carlos
Papeles del Psicólogo	69	2.5%	Spain	Consejo General de Colegios Oficiales de Psicólogos
Pensamiento Psicológico	34	1.2%	Colombia	Pontificia Universidad Javeriana
Psicología desde el Caribe	48	1.7%	Colombia	Universidad del Norte
Psicologia Reflexao e Critica	111	4.0%	Brazil	Universidade Federal do Rio Grande do Sul
Psicología y Salud	84	3.0%	Mexico	Universidad Veracruzana
Psicologia, Saúde e Doenças	50	1.8%	Portugal	Sociedade Portuguesa de Psicologia da Saúde
Psicologia: Reflexão e Crítica	59	2.1%	Brazil	Universidade Federal do Rio Grande do Sul
Psicológica	49	1.8%	Spain	Universitat de València
Psicothema	358	12.9%	Spain	Universidad de Oviedo
Psykhē	75	2.7%	Chile	Pontificia Universidad Católica de Chile
Revista Colombiana de Psicología	36	1.3%	Colombia	Universidad Nacional de Colombia
Revista Colombiana de Psiquiatría	141	5.1%	Colombia	Asociación Colombiana de Psiquiatría
Revista de Psicología	48	1.7%	Chile	Universidad de Chile
Revista Intercontinental de Psicología y Educación	38	1.4%	Mexico	Universidad Intercontinental
Revista Latinoamericana de Psicología	102	3.7%	Colombia	Fundación Universitaria Konrad Lorenz
Revista Mal-estar E Subjetividade	113	4.1%	Brazil	Universidade de Fortaleza
Revista Mexicana de Análisis de la Conducta	46	1.7%	Mexico	Sociedad Mexicana de Análisis de la Conducta
SMAD Revista Electrónica Salud Mental, Alcohol y Droga	43	1.5%	Brazil	Escola de Enfermagem de Ribeirão Preto
Terapia psicológica	60	2.2%	Chile	Sociedad Chilena de Psicología Clínica
The Spanish Journal of Psychology	106	3.8%	Spain	Universidad Complutense de Madrid
Universitas Psychologica	131	4.7%	Colombia	Pontificia Universidad Javeriana

**Analysis by country**

In the second part, contributions are analyzed by country, and the country of origin of the institutions to which each one of the authors reported being affiliated were taken into account. It was taken into account that an article can have more than one author and that said author can come from one or more institutions in one or more countries.

In Table 7, the distribution of the articles is shown by year and by country. On average, each country has a

rate of article production of 67.6% in a period of three years (D.E. 171.5). Note that the countries with the greatest share of publications are Spain, Brazil and Colombia, in that order.

In their great majority, the authors come from Ibero-American countries. As can be observed, the distribution of authors does not distribute normally but rather in accordance to a Poisson distribution, as indicated previously by other authors in the literature (Garcia-Cepero, 2007; 2010; Simontn, 2003). This implies that most of the production is centered in just a few countries and that many countries present low levels of contribution, which is also observed when analysis is performed in other regions, this implying that this is a generalized behavior not confined to Ibero-America (Figure 1).

In Table 8, the countries with the greatest number of authors in the sample are shown.

In Figure 2, the number of contributors by each country in the sample between 2005 and 2007 is shown, where it is revealed that more than 75% of the contributions registered in PsicoRedalyc are being developed in Spain, Brazil, Colombia and Mexico.

On analyzing the patterns of collaboration between countries, it was possible to identify nodes of collaboration between them. Table 9 shows the pairs of countries that presented the greatest number of

**TABLE 4  
ANALYSIS OF INTERNATIONAL COLLABORATION BY COUNTRY**

Country of author	Country of Journal							
	Argentina	Brazil	Chile	Colombia	Spain	Mexico	Peru	Latino-American
Germany				3	13		1	2
Argentina	146	5	12	47	37	16	21	
Australia				2	10	1	1	
Austria				2	4			
Belgium		1	1	3	6			
Brazil	6	1163	9	33	45	117	11	
Canada		2		1	12	2		
Chile	5	2	307	77	24	24	8	2
Colombia			56	966	32	12	42	
Costa Rica				19		2		
Cuba			6	5			12	
Ecuador				3				
Spain	2	41	32	170	2067	30	35	
EUA	1	6	8	32	156	32	28	
Finland					2			
France		20		1	2	2		
Greece					1			
Guatemala				1		3		
Holland				2	8			
Honduras				1				
Hungary					4			
Ireland				4	9			
Israel					3			
Italy		2		2	3	2		
Japan					6			
Mexico		12	18	169	72	43	458	1
Norway		1						
New Zealand					5		2	
Panama							1	
Paraguay				1		1	1	
Peru	3			5	1	2		10
Poland						1		
Portugal		136		4	61	3		
Puerto Rico				4	6	22		
United Kingdom1		4		9	38	1	1	
Dominican Republic								3
Russia					44			
Salvador				1			1	
Singapore					1			
Syria				2				
Switzerland		1		1	1	1		
Surinam						1		
Turkey					3			
Uruguay				2				
Venezuela	1	2	3	9	5	2	7	

**TABLE 5  
PERCENTAGE OF AUTHORS PER ARTICLE AND YEAR**

Number of authors per article	Year		
	2005	2006	2007
1	27.5%	22.3%	27.0%
2	31.3%	31.3%	31.9%
3	21.9%	22.0%	17.7%
4 or more	19.3%	24.4%	23.4%

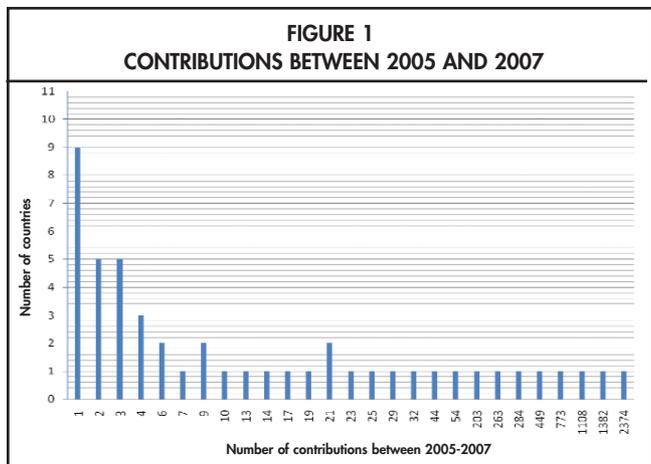
**TABLE 6  
NUMBER OF PARTICIPATING INSTITUTIONS PER ARTICLE**

Number of institutes per Article		
	Frequency	Percentage
1	1956	70.0
2	645	23.2
3	136	4.9
4	31	1.1
5 or more	10	.5
No information	3	.3
<b>Total</b>	<b>2781</b>	<b>100.0</b>

collaborations between 2005 and 2007. It can be highlighted that Spain is found in the first 7 places.

In Figure 3, the pairs of collaboration between different countries are illustrated. The arrow that each node receives

represents the country with which it has some type of collaboration. The thickness of said arrow represents the strength of said collaboration in terms of number of collaborations. The countries situated on the left and that do



not have arrows did not present any joint work between their institutes and those of other countries. Spain appears as the central node of collaboration with other countries, followed by USA, Brazil, Colombia and Mexico.

**Analysis by institutes**

On average, between 2005 and 2007, the institutions included in the sample presented a production rate of four articles in a period of three years with a standard deviation of 10.8 articles. In terms of contributions, the average for authors was 7.5, with a standard deviation of 23.7 contributors.

	2005	2006	2007	2005-2009	
Spain	34%	32%	32%	33%	
Brazil	19%	22%	16%	19%	
Colombia		14%	13%	18%	15%
Mexico	9%	11%	11%	11%	
Chile	8%	6%	5%	6%	
Argentina		5%	3%	4%	4%
USA	3%	4%	4%	4%	
Portugal	3%	3%	2%	3%	
Other countries		5%	7%	6%	6%

Country 1	Country 2	Number of collaborations
Spain	USA	33
Spain	Colombia	19
Spain	Mexico	18
Spain	Chile	16
Spain	Portugal	16
Spain	United Kingdom	13
Spain	Brazil	11
USA	Brazil	10
France	Brazil	10
United Kingdom	USA	6
Colombia	USA	6
Spain	Italy	5
Mexico	USA	5
USA	Chile	5
Spain	Argentina	4
Mexico	Brazil	4
Spain	Holland	4
Spain	Canada	4
Colombia	Chile	4

Figure 4 once again shows a distribution where most of the institutions appear only once with their production, and very few institutions concentrate the greatest quantity of production between 2005 and 2007.

Table 10 shows the production ranking by institution in the period 2005 – 2007. As can be observed, the Universidad Nacional Autónoma de México, the Pontificia Universidad Javeriana, the Universidad de Granada, the Universidad de Oviedo and the Universidade de Sao Paulo are found in the first places of both lists. However, it is pertinent to note that neither the Universidade de Sao Paulo or the Universidad Autónoma de México have journals in the analyzed sample. A different case is the Pontificia Universidad Javeriana, which has two analyzed journals. Even when the Universidad de Granada does not appear with its own journal, two of the editors of the International Journal of Clinical and Health Psychology are from this university and it is one of those that appear in the first places of production.

**Analysis of institutions year by year**

Table 11 shows the presence of said universities in a stable way between the years 2005 and 2007.

On analyzing the patterns of collaboration between institutions, it was possible to identify collaboration nodes between them. Table 12 shows the pairs of institutions that presented the greatest number of collaborations between 2005 and 2007.

Ranking according to number of articles 2005-2007	Ranking according to number of contributions 2005-2007
Pontificia Universidad Javeriana	Universidad Nacional Autónoma de México
Universidad Nacional Autónoma de México	Pontificia Universidad Javeriana
Universidad de Granada	Universidad de Granada
Universidade de Sao Paulo	Universidad de Oviedo
Universidad Complutense de Madrid	Universidade de Sao Paulo
Universidad de Oviedo	Universidad Autónoma de Madrid
Universidad Autónoma de Madrid	Universidad Complutense de Madrid
Universitat de València	Universitat de València
Universidad Nacional de Colombia	Universidad de Murcia
Universidad Nacional de Educación a Distancia-España	Universidad San Buenaventura Medellín

Figure 5 shows pairs of collaboration between institutions. Only the pairs that presented at least four joint collaborations are included in the diagram. It can be observed that in almost all cases, consistent collaboration is carried out between universities of the same country. In the diagram, the thickest arrows show a greater number of joint collaborations.

**Author analysis**

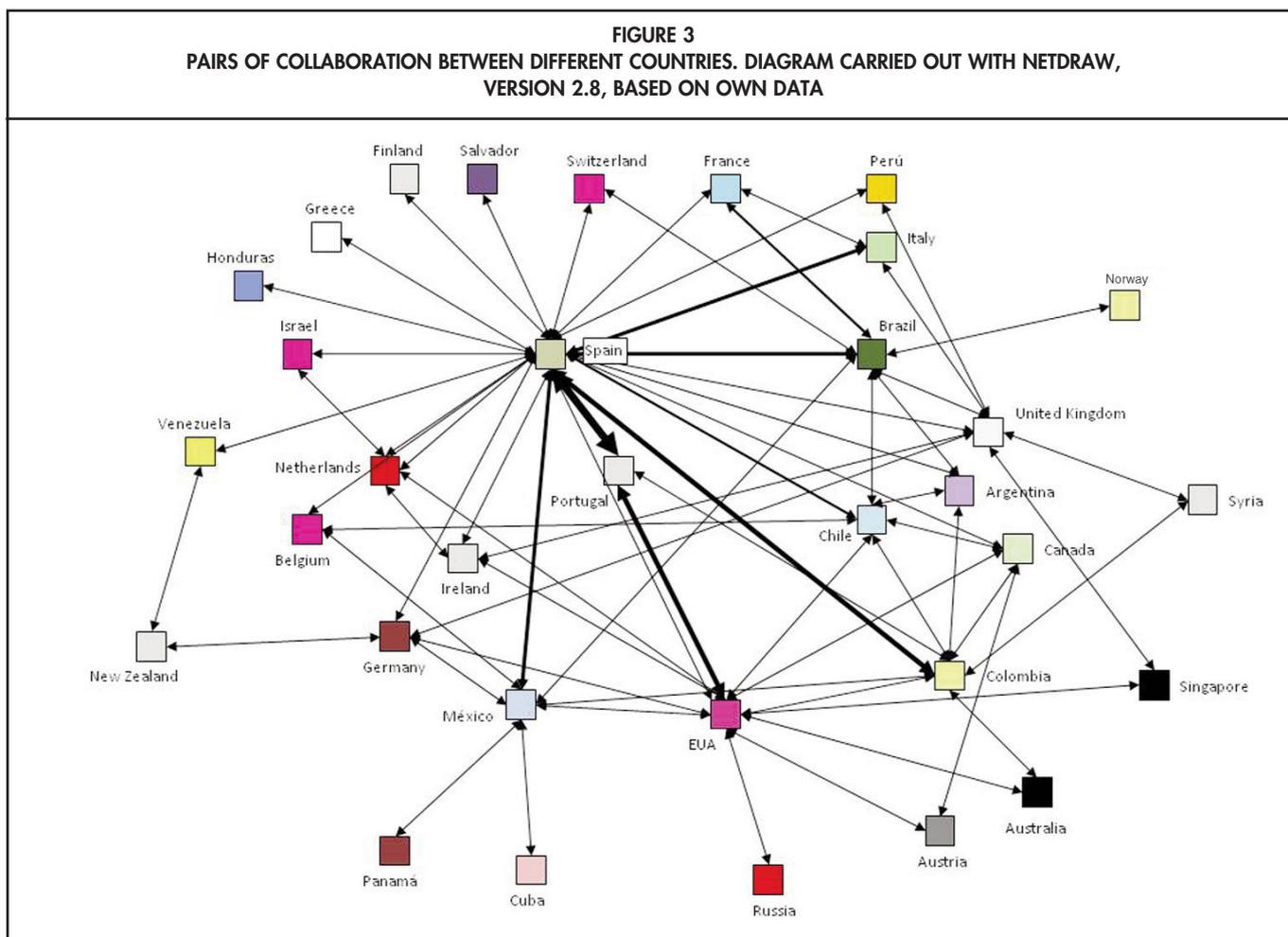
In the analysis, it was possible to identify 5302 different authors. Overall, the distribution of contributors does not follow a normal curve, but as is expected, it is a Poisson distribution in which a small percentage of subjects are responsible for a very high percentage of the contributions, considering that the great majority of the authors produce an average of 1.4 publications in three years, a behavior similar to that described by different authors in previous investigations (Garcia-Cepero, 2007; 2010; Simonton, 2003).

Eighty point nine percent of the authors made only one contribution in a period of three years, 11.3% contributed two articles, 5.9% contributed between three and four articles and the remaining 1.9% contributed five or more articles in three years (Figure 6).

Table 13 Shows a list of authors who can be found in percentile 99 given the number of contributions made between 2005 and 2007

On analyzing the patterns of collaboration between authors, it was possible to identify collaboration nodes between them. Table 14 shows the pairs of authors that presented the greatest number of collaborations between 2005 and 2007. It is interesting to observe how authors with high levels of contribution also tend to show a high number of joint contributions in nodes of academic production.

Figure 7 shows groups of collaboration between authors with high levels of collaboration. It was possible to identify 11 work networks (collaboration groups)

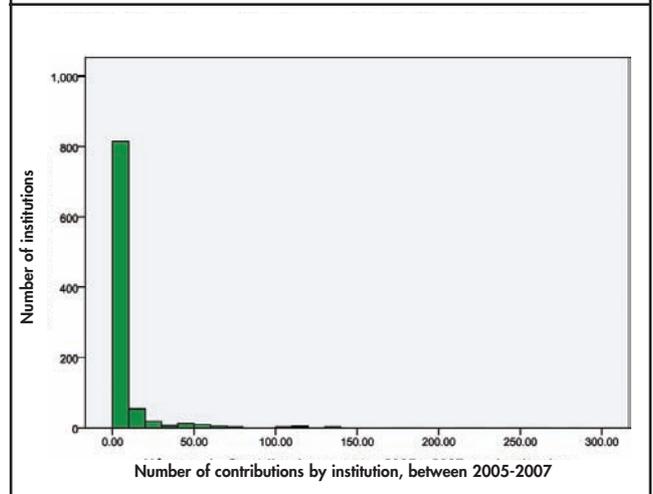


composed of authors with at least five joint collaborations. The colors of the nodes represent the country the author belongs to and the shape of the node (and its color) represent different institutions. The authors of Spanish institutions are shown in red, Colombian institutions in pink, Brazilian institutions in green, Mexican institutions in black, French institutions in grey and Portuguese institutions in blue.

**TABLE 11**  
**INSTITUTIONS FOR THE PERIOD 2005 – 2007**

Number of articles 2005	Number of contributions 2005
Universidade de Sao Paulo	Universidad de Granada
Pontificia Universidad Javeriana	Pontificia Universidad Javeriana
Universidad de Granada	Universidade de Sao Paulo
Universidad Nacional Autónoma de México	Universidad Nacional Autónoma de México
Universidad Complutense de Madrid	Universidad Complutense de Madrid
Universidad Autónoma de Madrid	Universidad de Oviedo
Universitat de València	Universidad Autónoma de Madrid
Universidad de Murcia	Universidad de Murcia
Universidad de Oviedo	Universitat de València
Pontificia Universidad Católica de Chile	Pontificia Universidad Católica de Chile
Number of articles 2006	Number of contributions 2006
Pontificia Universidad Javeriana	Universidad Nacional Autónoma de México
Universidad de Granada	Pontificia Universidad Javeriana
Universidad Nacional Autónoma de México	Universidad de Granada
Universidade de Sao Paulo	Universidad de Oviedo
Universidad Complutense de Madrid	Universidad Autónoma de Madrid
Universidad Nacional de Educación a Distancia-España	Universidad San Buenaventura Medellín
Universitat de València	Universidad Complutense de Madrid
Universidad Autónoma de Madrid	Universitat de València
Universidad de Oviedo	Universidad Nacional de Educación a Distancia-España
Universidad de Murcia	Universidade de Sao Paulo
	Universidad de Murcia
Number of articles 2007	Number of contributions 2007
Pontificia Universidad Javeriana	Universidad Nacional Autónoma de México
Universidad Nacional Autónoma de México	Pontificia Universidad Javeriana
Universidad Nacional de Colombia	Universidad de Oviedo
Universidad de Granada	Universidad de Granada
Universidad de Oviedo	Universidad Nacional de Colombia
Universidade de Sao Paulo	Universidade de Sao Paulo
Universidad Complutense de Madrid	Universidad Autónoma de Madrid
Universidad Nacional de Educación a Distancia-España	Universidad Nacional de Educación a Distancia-España
Universidad Autónoma de Madrid	Universidad Complutense de Madrid
Universitat de València	Universitat de València
Universidade Federal do Rio Grande do Sul	

**FIGURE 4**  
**DISTRIBUTION OF CONTRIBUTIONS BY INSTITUTION 2005 – 2007**



**TABLE 12**  
**PAIRS OF INSTITUTIONS BY NUMBER OF COLLABORATIONS 2005 - 2007**

Institution 1	Institution 2	Number of Collaborations
Universidad San Buenaventura Medellín	Universidad de Antioquia	14
Universidad de Murcia	Universidad Miguel Hernández	14
Universidad de Granada	Universidad Nacional de Educación a Distancia-España	11
Universidad de Jaén	Universidad de Granada	9
Universidade Federal de Pernambuco	Universidade Federal da Paraíba	8
Universidad Complutense de Madrid	Universidad Autónoma de Madrid	8
Universidad de Almería	Universidad de Granada	7
Universidad Santo Tomás-Colombia	Universidad San Buenaventura Medellín	6
Universitat de València	Universitat Jaume I	6
Universidade Estadual do Piauí	Universitè Paris VII	6
Universidade de Sao Paulo	Universidade Estadual Paulista	5
Universidad Católica de Colombia	Universidad San Buenaventura Medellín	5
Universidad de Buenos Aires	Consejo Nacional de Investigaciones Científicas y Técnicas	5
Universidade do Minho	Universidad de Oviedo	5
Universidad de Granada	Universidad de Murcia	5
Universidad de Oviedo	Universidad de Murcia	5
Universidad de Chile	Universidad de Santiago de Chile	5
Universidad Nacional de -España Educación a Distancia	Universidad de Sevilla	5
Universidad de Sevilla	Universidad Nacional de Educación a Distancia-España	5
Universitat de València	Universitat de Barcelona	4
Universitat de València	Universidad Miguel Hernández	4
Universidade Federal do Ceará	Universidade de Fortaleza	4
Universidad Veracruzana	Universidad Nacional Autónoma de México	4
Universidad Autónoma de Madrid	Universidad de Zaragoza	4

The most stable collaboration groups are those of Vinaccia Alpi, Stefano and Quiceno, Japcy of the Universidad San Buenaventura Medellín – Colombia with Tobón, Sergio of the Universidad de Antioquia – Colombia, as well as the node of Zubeidat, Ihab of the Universidad Nacional de Educación a Distancia – Spain and Fernández-Parra, Antonio and Sierra, Juan of the Universidad de Granada – Spain. It is frequent for networks to integrate authors of different countries.

### DISCUSSION

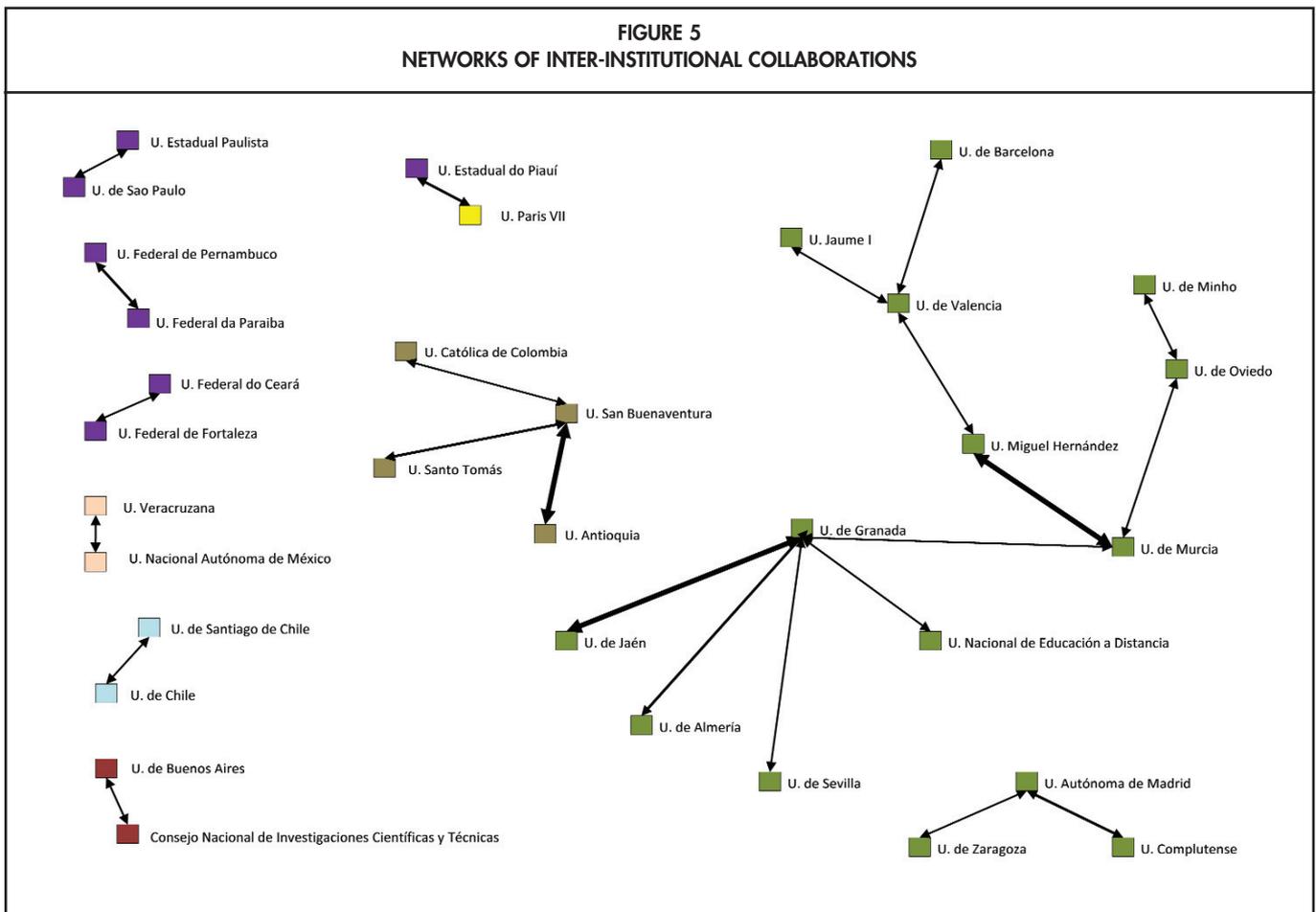
Our intention was to offer an exhaustive analysis of the Psychology production in Ibero-America from 2005 to 2007 through the data gathered by the PsicoRedalyc system. It is pertinent to note that even when the population does not include journals from other countries, it is a very representative sample of the regional production that complies with the regularity of publication criteria. For this analysis only three journals included in the Latino-America ISI were not included, these are: the

Revista Mexicana de Psicología, the Revista Argentina de Clínica Psicológica and the Revista de Psicología Psicosomática de Brasil; and three Spanish journals, the Revista Española de Psicología del Deporte and Psicología Conductual. Therefore, this makes the present sample very significant for the analysis of regional production.

On the other hand, it is clear that the practice of the two most productive countries, Spain and Brazil, are similar with respect to the low collaboration between countries and institutions; this is especially true in the case of Brazil and in the communication practices of contributions of other Latino-American countries (Argentina, Chile, Mexico) that are in this same line. It seems clear that there is still a high level of endogamy at the national level, which, once again, is seen particularly in Brazil, with very little participation of authors from other countries.

On the other hand, Colombia and Mexico present an important number of contributions from authors from other countries. This can also be observed in relation to

FIGURE 5  
NETWORKS OF INTER-INSTITUTIONAL COLLABORATIONS



the analysis of institutions. In this regard, it is clear that if an important indicator of international databases is their exogamy, it is necessary to make a considerable effort to achieve this.

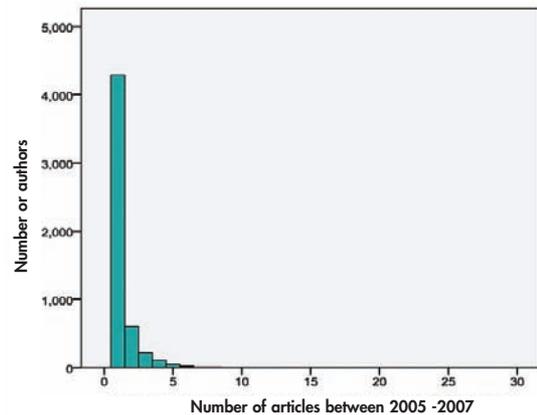
Moreover, it is important to point out that approximately 75% of articles are signed by more than one author and that, in this sense, psychology behaves more like disciplines such as the biomedical sciences than those of humanities, where the pattern is more of single authors than research teams. Said pattern is maintained in the time analyzed.

As shown in the results, the contributions made by each country were associated with the quantity of journals in the sample. Despite this bias, the data obtained by other systems such as SCOPUS or Web of Science reveal similar tendencies in the distributions of the contributions. It is clear that when the contributions in collaboration are analyzed, Spain, the United States, Colombia, Mexico and Chile have the highest rates of collaborations.

With respect to institutional production, it is relevant to note how the Universidad Nacional Autónoma de México

appears in the first two places, both in the number of articles and the number of appointed contributions; it is pertinent to point out that this University does not have

**FIGURE 6**  
**ARTICLE PRODUCTION RATE BETWEEN 2005 -2007**



**TABLE 13**  
**AUTHORS IN PERCENTILE 99 ACCORDING TO THEIR PRODUCTION RATE BETWEEN 2005 AND 2007**

Number of articles	Authors
29	Vinaccia Alpi, Stefano
25	Sierra, Juan
21	Buela-Casal, Gualberto
13	Quiceno, Japcy
12	Zubeidat, Ihab; Mustaca, Alba; Gil Roales-Nieto, Jesús; Piña López, Julio; Fernández-Parra, Antonio
11	Rosa Alcázar, Ana; Tobón, Sergio; Gómez-Restrepo, Carlos
10	Olivares-Rodríguez, José
9	Gutiérrez, Germán; Campo-Arias, Adalberto; Núñez, José; Vera-Villaruel, Pablo; Viganò, Carlo
8	Morales Domínguez, José; Carpio, Claudio; Pérez-Acosta, Andrés; López-Espinoza, Antonio; Roazzi, Antonio; Contreras, Francoise; Santos, Manoel dos
7	Cangas, Adolfo; Gutiérrez-Martínez, Olga; Guedes, Dilcio; Carneiro, Henrique; Díaz, Darío; Rodríguez Pérez, Armando; Topa Cantisano, Gabriela
6	Parente, María; Flores, Carlos; Blanco, Amalio; Blanca, María; Moreno Jiménez, Bernardo; Bueno, José; Cáceres de Rodríguez, Dely; Rueda-Jaimes, Germán; Rosário, Pedro; Carretero-Dios, Hugo; Dias, Maria; Vallejo, Guillermo; Pérez San Gregorio, María; Castro Solano, Alejandro; Andrade Palos, Patricia; Catena Martínez, Andrés; Pulido Rull, Marco; Extremera, Natalio; Ballesteros de Valderrama, Blanca; Luciano-Soriano, María; Assunção, Larissa

**TABLE 14**  
**JOINT CONTRIBUTIONS BETWEEN AUTHORS 2005 - 2007**

Author 1	Author 2	Joint Contributions
Vinaccia Alpi, Stefano	Quiceno, Japcy	13
Zubeidat, Ihab	Fernández-Parra, Antonio	12
Zubeidat, Ihab	Sierra, Juan	12
Sierra, Juan	Fernández-Parra, Antonio	12
Vinaccia Alpi, Stefano	Tobón, Sergio	11
Rosa Alcázar, Ana	Olivares-Rodríguez, José	9
Núñez, José	González-Pienda, Julio	8
Vinaccia Alpi, Stefano	Contreras, Francoise	6
Sierra, Juan	Buela-Casal, Gualberto	6
Rosário, Pedro	Núñez, José	6
Guedes, Dilcio	Assunção, Larissa	6
Betancor, Verónica	Rodríguez Pérez, Armando	5
Betancor, Verónica	Rodríguez, Ramón	5
Cáceres de Rodríguez, Dely	Varela Arévalo, María	5
Canales, César	Carpio, Claudio	5
Debenetti, Carmen	Fonseca, Tania	5
Gaviria, Ana	Quiceno, Japcy	5
Gaviria, Ana	Vinaccia Alpi, Stefano	5
González-Pienda, Julio	Rosário, Pedro	5
Morales Domínguez, José	Topa Cantisano, Gabriela	5
Moreno Rodríguez, Diana	Robles Montijo, Susana	5
Núñez, José	Solano, Paula	5
Olivares-Rodríguez, José	Piqueras Rodríguez, José	5
Piqueras Rodríguez, José	Rosa Alcázar, Ana	5
Rodríguez Pérez, Armando	Rodríguez, Ramón	5
Rosário, Pedro	Solano, Paula	5

any journal in the system. The Pontificia Universidad Javeriana (that has two journals within the system: *Pensamiento Psicológico* and *Universitas Psychologica*) is in second place and, as previously mentioned, in the case of the Universidad de Granada, one of the journals with the greatest number of contributions is the *International Journal of Clinical and Health Psychology*, especially taking into account that two of its editors are from this University; the Universidad de Oviedo is the institution that edits the journal *Psicothema*, which has the highest number of contributions per year in the system. As can be seen, these three institutions have the greatest number of contributions in the base.

On the one hand, this definitely shows the importance of having journals in order to attain institutional visibility, although it could also be reflecting a type of endogamy.

The collaboration analysis presents a group of institutions that have the greatest collaboration; it is especially important to highlight the role of the Universidad San Buenaventura of Medellín in Colombia and the Universities of Murcia and Granada in Spain, although they correspond to contributions from the same country.

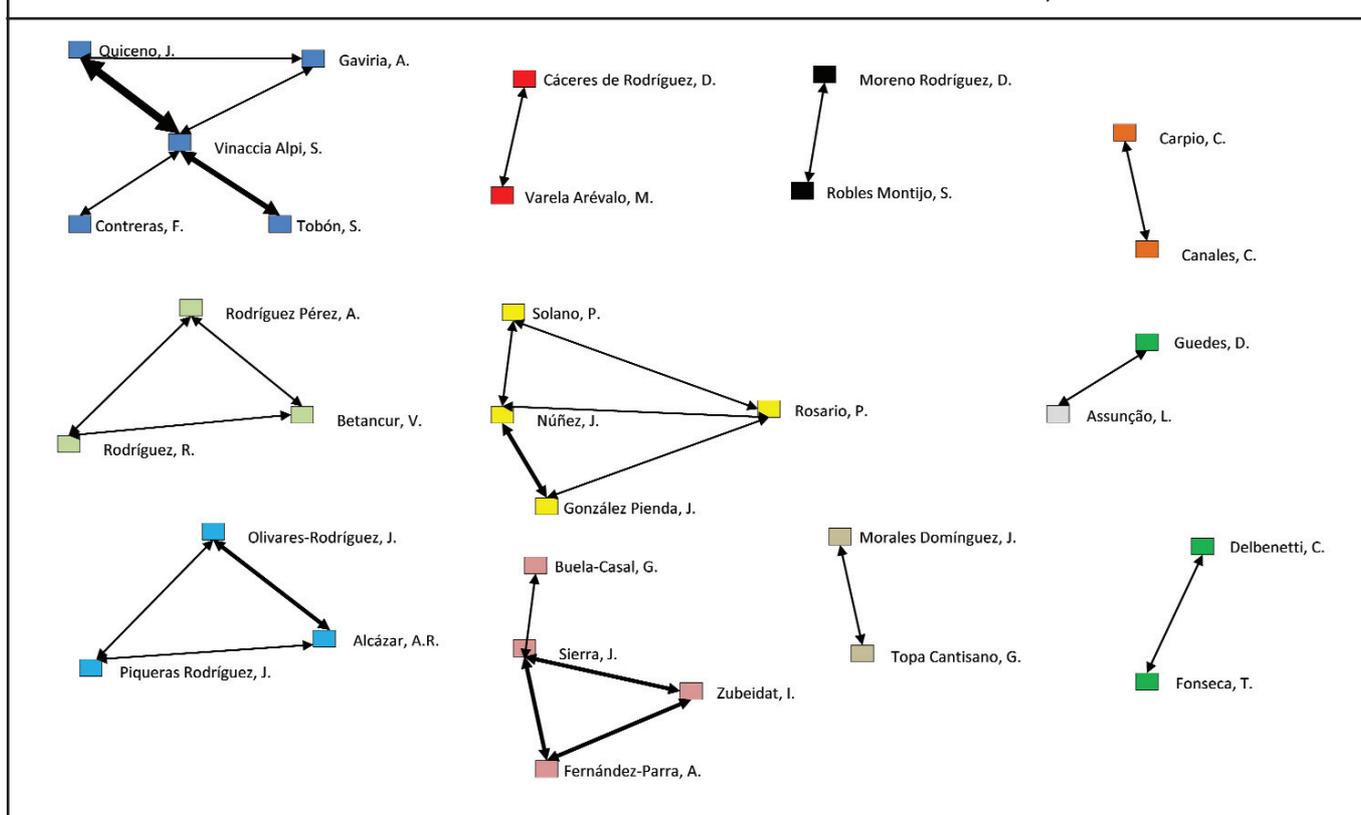
In relation to the authors, as can be observed once again, the distribution is centered around a very few people who repeat articles and collaborations, as is the case of Vinaccia-Alpi, Sierra, Buela-Casal, Quinceno, Zubeidat, Mustaca, Gil Roales, who in the case of Sierra, Buela-Casal and Gil Roales are the editors of a journal.

On the other hand, Vinacia-Alpi is the author with the greatest number of collaborations as well as Sierra and Buela-Casal, which can be suggesting the importance of working in collaboration in order to increase the quantity of published articles. A detailed analysis shows that the collaborations generated by the most productive author situates his/her institution as one of those with the greatest number of collaborations.

In relation to collaboration, the countries, the institutions and the authors maintain the tendencies shown in the analysis of the entire database. This again concentrates production in a few institutions and authors. A lot of work still must be done to produce in collaboration both internationally and nationally.

Regarding the authors, we must once again note that the most productive are the same year after year, and the

FIGURE 7  
GROUPS OF COLLABORATION BETWEEN AUTHORS. DIAGRAM MADE WITH NETDRAW VERSION 2.8, BASED ON OWN DATA



team of Vinaccia-Alpi, which also presents the most complex networks, excels. Equally, the network of Delcy Cáceres from the Pontificia Universidad Javeriana-Cali stands out. These results suggest that it is necessary to strengthen the research networks and promote publication in journals from other countries.

Evidently, this study does not take into account the impact of regional production, nor the production of any country within the region. In this regard, working on production impact analysis by country and in the region assessed based on citation analysis, is surely one of the necessary paths to follow.

In addition, this study offers a first analysis of the Psicoredalyc database, which is constantly being improved, and that is the result of the synergy between Redalyc and the Federación Iberoamericana de Asociaciones de Psicología, a system that today provides full-text information regarding the majority of the most important psychology journals edited in Ibero-America, and that also provides diverse bibliometrical information. Its contribution to psychology in our context is evident.

This study does not intend to exhaust the subject, but rather to open new analyses to identify the characteristics of the production in Ibero-American and regional Psychology and, thus, encourage the continuity of studies in this direction.

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