# National and international impact factor of Actas Españolas de Psiquiatría

R. Aleixandre Benavent<sup>a</sup>, J. C. Valderrama Zurián<sup>a</sup>, M. Castellano Gómez<sup>b</sup>, R. Simó Meléndez<sup>a</sup> and C. Navarro Molina<sup>a</sup>

<sup>a</sup> Instituto de Historia de la Ciencia y Documentación López Piñero. Consejo Superior de Investigaciones Científicas-Universidad de Valencia. <sup>b</sup> Consejería de Sanidad. Generalitat Valenciana. Spain

# Factor de impacto nacional e internacional de Actas Españolas de Psiquiatría

# **Summary**

The aim of this paper is to present the bibliometric indicators of ACTAS ESPAÑOLAS DE PSIQUIATRÍA that were obtained from the study «Potential impact factor of the Spanish medical journals in 2001», financed by the Spanish Ministerio de Educación, Cultura y Deporte. The citations made in Actas Españolas de Psiquiatría and its national and international impact factor and immediacy index bave been obtained by the use of a methodology similar to the one used by the Institute for Scientific Information. The national indicators only take into account the citations made in 87 Spanish journals considered as sources, while those from the foreign source journals of Science Citation Index have been added to the previously cited ones. ACTAS ESPAÑOLAS DE PSIQUIATRÍA has obtained a national impact factor of 0.315 and an international impact factor of 0.395, which places it as a leader in the Spanish psychiatric journals.

**Key words:** Bibliometric indicators. Impact factor. Immediacy index. Spanish psychiatric journals. ACTAS ESPAÑOLAS DE PSIQUIATRÍA

#### Resumen

El objetivo de este trabajo es presentar los indicadores bibliométricos de Actas Españolas de Psiquiatría obtenidos del estudio «Factor de impacto potencial de las revistas médicas españolas en 2001», financiado por el Ministerio de Educación Cultura y Deporte español. Siguiendo una metodología similar a la que emplea el Institute for Scientific Information, se ban obtenido las citas de ACTAS ESPAÑOLAS DE PSIQUIATRÍA y su factor de impacto e índice de inmediatez nacionales e internacionales. Los indicadores nacionales tienen en cuenta únicamente las citas procedentes de 87 revistas españolas seleccionadas como fuentes, mientras que para el cálculo de los indicadores internacionales se ban sumado a las citas anteriores las que proceden de las revistas fuente extranjeras del Science Citation Index. ACTAS ESPAÑOLAS DE PSIQUIATRÍA ha obtenido un factor de impacto nacional de 0,315 y un factor de impacto internacional de 0,395, lo que la sitúa en posiciones de liderazgo entre las revistas españolas de su especialidad.

Palabras clave: Indicadores bibliométricos. Factor de impacto. Índice de inmediatez. Revistas psiquiátricas españolas. ACTAS ESPAÑOLAS DE PSIQUIATRÍA.

#### INTRODUCTION

The impact factor (IF) is a bibliometric indicator published yearly in the *Journal Citation Reports* (JCR) that is calculated from the citations that the journals included in the *Science Citation Index* (SCI) of the Institute for Scientific Information receive. Although what is really measured is the mean citation frequency of each journal in the 2 previous years, it has presently become an index of the quality of the publications, since it is based on the recognition of their value by the scientific community through the citations<sup>1-3</sup>.

In the year 2000, ACTAS ESPAÑOLAS DE PSIQUIATRÍA began to have an IF in the JCR of 0.078 points, a value that

Correspondence:

Rafael Aleixandre Benavent Instituto de Historia de la Ciencia y Documentación López Piñeiro Av. Blasco Ibáñez, 15 Facultad de Medicina de Valencia 46010 Valencia (Spain) E-mail: aleixand@uv.es tripled in 2001 with an IF of 0.272. On the other hand, a recent study on the IF of the Spanish medical journals of the Ministry of Education, Culture and Sports has made it possible to obtain the national and international value in 2001 of this indicator in a selection of 87 Spanish medical journals<sup>4</sup>, among them, ACTAS ESPAÑOLAS DE PSIQUIATRÍA and four other Spanish psychiatric journals. The objective of this study is to present the indicators that were obtained by ACTAS ESPAÑOLAS DE PSIQUIATRÍA in 2001, both from the national as well as international perspective and its comparison with the other journals of its specialty.

# **MATERIAL AND METHODS**

For the citation analysis, those included in the national bibliographic database IME/Índice Médico Español (Spanish Medical Index) and also in some of the following international databases were selected as the source journals: Medline, Excerpta Medica, Biosis or

SCI. This selection criterion is based on the assumption that the inclusion of a journal in the bibliographic databases is considered as a solid guarantee of its quality<sup>5-7</sup>.

In the 87 journals obtained by this method, the citable articles (investigation articles in a strict sense, reviews and notes, according to the Information Science Institute [ISI] methodology) were obtained, and, in them, 3,547 references corresponding to 1999, 2000 and 2001 that cited some of the 87 source journals were identified.

The calculation of the indicators was different according to whether it was the national or international IF. The national IF of each journal has been calculated, establishing the relationship between the citations received in 2001 regarding the articles published in ACTAS ESPAÑO-LAS DE PSIQUIATRÍA in the two previous years (1999 and 2000) and the articles published in these two years. The immediacy index has been calculated by dividing the citations that have been received in 2001 by the articles published this year. To obtain the international IF, it was necessary to add citations from different origins: on the one hand, those coming from the 87 Spanish source journals and, on the other, the citations that these same journals received from the foreign journals included in the SCI. To do so, a search was performed in the SCI in the option cited ref search (timespan = 2001), combining the field cited work (with the abbreviations of the Spanish journals) and cited year (with the equation «1999 OR 2000 OR 2001»). Therefore, this international IF corresponds to the hypothetical one that the 87 source journals would have if they formed a part of the SCI coverage.

#### **RESULTS**

Table 1 presents national and international IF and immediacy indexes of ACTAS ESPAÑOLAS DE PSIQUIATRÍA, as well as the figures of citation and citable articles necessary for its calculation. The journal obtained a national IF of 0.315, which places it in 19th place among the 87 journals analyzed<sup>4</sup>, above the other journals of its specialty, such as Anales de Psiquiatría (IF=0.144), Psiquis (IF = 0.104) and The European Journal of Psychiatry (IF=0.037), whose indicators can be seen in table 2. The Revista de Psiquiatría de la Facultad de Medicina de Barcelona did not obtain an IF as it had not received citations by the source journals in the 2 years necessary for the IF measurement. Besides obtaining the greatest impact factor among the journals of its area, ACTAS ESPA-NOLAS DE PSIQUIATRÍA was also the most cited journal by the Spanish ones. The national immediacy index was 0.016. The international IF obtained (IF = 0.395) once again places ACTAS ESPAÑOLAS DE PSIQUIATRÍA above the other journals of its specialty.

Table 3 makes it possible to know the Spanish and foreign journals that cite ACTAS ESPAÑOLAS DE PSIQUIATRÍA. The citations mostly come from the same source journal, followed by *Adicciones* (five citations), *Atención Primaria* and *Journal of Clinical Psychiatry*, with three citations, respectively.

TABLE 1. National and international impact factors of Actas Españolas de Psiquiatría

# National impact factor and national immediacy index

#### Citations, articles and indicators

Citations			Articles			Impact factor	Immediacy	
1999	2000	2001	1999	2000	2001	factor	index	
21	15	1	51	63	62	0.315	0.016	

Total citations: 37 Total articles: 176

# Calculation form

Indicator	Citations 1999+ citations 2000	Articles 1999+ articles 2000	Operation	Result	
Impact factor	21+15	51+63	(21+15)/ (51+63)	0.315	
Indicator	Citations 2001	Articles 2001	Operation	Resultado	
Immediacy index	1	62	1/62	0.016	

#### International impac factor and international immediacy index

#### Citations, articles and indicators

Citations			Articles			Impact	Immediacy	
1999	2000	2001	1999	2000	2001	Impact factor	index	
27	18	2	51	63	62	0,395	0.032	

Total citations: 47 Total articles: 176

# Calculation form

Indicator	Citations 1999+ citations 2000	Articles 1999+ articles 2000	Operation	Result	
Impact factor	27+18	51+63	(27+18)/ (51+63)	0.395	
Indicator	Citations 2001	Articles 2001	Operation	Result	
Immediacy index	2	62	2/62	0.032	

# **DISCUSSION**

The impact factor of the scientific journals has been used, in spite of the criticisms received, as an index of quality, prestige and dissemination of the journals. The interest of the editors to obtain IF in the JCR or in increasing it has led them to adopt decisions that improve their quality and to try to be more attractive for the researches, such as providing a prestigious international editorial board, improving the speed in the publications of the studies and increasing strategies to achieve greater dissemination<sup>8</sup>.

TABLE 2. Repercussion indicators of the Spanish psychiatric journals

Journals	Nº of citations (SCI+Spanish)			NIF	NII	IIF	III
	1999	2000	2001				
Actas Españolas							
de Psiquiatría	27	18	2	0.315	0.016	0.395	0.032
Anales de							
Psiquiatría	5	10	2	0.144	0.035	0.144	0.035
European Journal							
of Psychiatry	7	4	0	0.037	0.019	0.203	0
Psiquis	6	1	0	0.104	0	0.104	0
Revista de Psiquiatría de la Facultad de							
Medicina de Barcelona	<i>i</i> 0	0	1	0	0.043	0	0.043

NIF: national impact factor; NII: national immediacy index; IIF: international impact factor; III: international immedicacy index.

In spite of having obtained a moderate IF, ACTAS ESPA-NOLAS DE PSIQUIATRÍA has become consolidated as the Spanish journal of its specialty that has obtained repercussion indicators having the greatest magnitude, both in the number of citations received as well as in the national and international impact factor, indicators that support its merited presence in the JCR. The causes that produce this leadership are probably diverse, among them, the necessary quality of the studies published, the exact fulfillment of the publication guidelines, the strict-

TABLE 3. Spanish (S) and foreign journals that cite Actas Españolas de Psiquiatría (1999-2001)

Journals	1999	2000	2001	Total
Actas Española de Psiquiatría (S)	13	0	9	22
Adicciones (S)	2	2	1	5
Anales de Psiquiatría (S)	0	2	0	1
Atención Primaria (S)	2	1	0	3
Canadian Medical Association				
Journal	0	1	0	1
Gaceta Sanitaria (S)	1	0	0	1
Journal of Clinical Psychiatry	2	1	0	3
Journal of Nervous and Mental Disease	1	0	0	1
Journal of Substance Abuse Treatment	0	0	1	1
Psychosomatic Medicine	1	0	0	1
Psiquis (S)	2	0	0	2
Revista de Neurología (S)	0	1	0	1
Revista de Psiquiatría de la Facultad				
de Medicina de Barcelona (S)	1	0	0	1
Revista Española de Medicina				
Nuclear (S)	0	1	0	1
Supportive Care in Cancer: Official				
Journal of the Multinational				
Association of Supportive Care				
in Cancer	1	0	0	1
Wiener Klinische Wochenschrift	1	0	0	1
	27	18	2	47

ness of the editorial review process, its electronic availability (since the complete text of its articles can be seen in Internet) and its publication in English, which increases its international visibility.

One of the causes that would explain the low citation index of the Spanish journals is the fact, already mentioned in this and other specialities<sup>9-13</sup>, that Spanish authors hardly include bibliographic references of studies published in our countries. It is unquestionable that the collaboration of our same authors in the greater citation of our journals would result in an improvement in their impact. On the other hand, as has been verified in this study, the inclusion in the coverage of the SCI of a greater number of national journals would result in impact factors having greater magnitude, on benefiting from the citations coming from the Spanish journals by the professionals, than the foreign ones.

The data provided by this analysis should be cautiously interpreted, since it only covers one year and the results could be substantially modified over time. On the other hand, it should be considered that the absence of impact of some journals does not mean that they lack quality or do not fulfill any role in the transmission of knowledge, since the impact indicators provide, above all, a measure of the utility of the publications, more than their quality<sup>14</sup> <sup>15</sup>. They should also not be used to compare journals from different areas, since each one of them has their own citation patterns that make them imcomparable <sup>1-3,6,8,15</sup>.

# **ACKNOWLEDGEMENTS**

This study has been performed with help from the Studies and Analysis Program (announcement 2003) of the General Direction of the Universities of the Ministry of Education, Cuture and Sports.

# **REFERENCE**

- 1. Garfield E. The meaning of the IF Int J Clin Health Psychol 2003;3:363-9.
- Bordons M, Zulueta MA. Evaluación de la actividad científica a través de indicadores bibliométricos. Rev Esp Cardiol 1999;52:790-800.
- Aleixandre Benavent R, Porcel Torrens A. El factor de impacto de las revistas científicas. Trast Adict 2000;1(4):264-71.
- Factor de impacto potencial de las revistas médicas españolas. [Cited 2004 March 29]. Available from URL: http:// 147.156.181.37/imecitas/impacto.shtml
- López Piñero JM, Terrada ML. Los indicadores bibliométricos y la evaluación de la actividad médico-científica (III).
  Los indicadores de producción, circulación y dispersión, consumo de la información y repercusión. Med Clin (Barc) 1992;98;142-8.
- Maltrás Barba B. Los indicadores bibliométricos. Fundamentos y aplicación al análisis de la ciencia. Gijón: Ediciones TREA, 2003.
- Tilley C. Medical databases and health information systems. Ann Rev Inf Sci Technol 1990;25:313-82.
- Buela-Casal G. La evaluación de la investigación científica: el criterio de la opinión de la mayoría, el factor de impacto,

- el factor de prestigio y «Los Diez Mandamientos» para incrementar las citas. Anal Modific Conducta 2002;28:455-76.
- 9. Pérez V. Tenemos lo que merecemos. Psiquiatr Biol 2000; 7(2):49.
- Porcel A, Aleixandre R. ¿Tenemos lo que merecemos? Análisis de las citas españolas en la revista Psiquiatría Biológica (1994-1999). Psiquiatr Biol 2000;7(6):242-8.
- 11. Ortega Serrano M, Martínez León J, Sala Palau C. Autoboicot científico entre los cirujanos españoles, ¿por qué no nos citamos? Cir Esp 1992;51:3-7.
- 12. Porcel Torrens A, Castellano Gómez M, Valderrama Zurián JC, Aleixandre R, Choren S. Análisis de citas en la revista Adicciones. Adicciones 2003;15(4):309-19.
- 13. De Granda Orive JJ. Algunas reflexiones y consideraciones sobre el factor de impacto. Arch Bronconeumol 2003;39: 409-17.
- 14. Seglen PO. Citation frequency and journal impact: valid indicator of scientific quality? J Intern Med 1991;229:109-11.
- 15. Kostoff RN. The use and misuse of citation analysis in research evaluation. Scientometrics 1998;43:27-43.