European Union scientific production on alcohol and drug misuse (1976–2000)

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ABSTRACT

Background Alcohol and drug misuse is a social and health phenomenon of great relevance in the European Union (EU). One indicator of scientific production in a given area is the analysis of publications included in bibliographic databases. Scientific production on alcohol and drug misuse was analysed in EU member countries, and comparisons were made between countries.

Methods Analysis of articles on alcohol and drug misuse published during the period 1976–2000 by institutions based in a country of the EU, indexed by PsycINFO.

Results A total of 4825 citations was retrieved. Great Britain published 38.6%, while Sweden, Germany and Spain accounted for a further 30%. The articles dealt with drug and alcohol usage (12.8%), substance abuse (53.5%) and drug and alcohol rehabilitation (34.5%). The articles were published in 13 different languages, more than three-quarters being in English. Spanish was the second language, and was followed by French, German, Dutch and Italian. The articles were published in 521 different journals, and 62 of these published more than 10 articles. The journals publishing most were Addiction, Alcohol and Alcoholism and Drug and Alcohol Dependence. Sixty-eight per cent of the articles were signed by more than one author, and the index of collaboration, between 1996 and 2000, was 3.24.

Discussion and conclusions PsycINFO is useful for making comparisons between countries, because it includes the name and country of the institution. The number of publications in the EU on alcohol and drug misuse increased over the quarter-century analysed. The most used language was English, as it also is for PsycINFO as a whole, and a tendency towards its increased use was observed. Classification of the articles by subject by the Classification Code is too general, and makes it difficult to distinguish between the areas it proposes. Production tends to be concentrated in journals dealing specifically with drug dependence and psychiatry. The index of collaboration is similar to that found in other scientific areas.

KEYWORDS alcohol and drug misuse, bibliometrics, European Union, journal articles, PsycINFO, publications, substance dependence.

INTRODUCTION

Drug and alcohol consumption and the problems associated with it in the European Union (EU) countries is a phenomenon with a significant social impact, which generates important investment in preventive and therapeutic actions. According to the European Monitoring Centre for Drugs & Drug Addiction (2003), although the trends and levels of illegal drug consumption and its consequences differ across countries and regions, the
phenomenon has become established. In recent decades numerous projects in all EU countries have been conducted on different aspects of addiction. These investigations have been carried out mainly since the 1970s, when the importance of the subject became generally recognized. The trends in the different countries, however, appear to have been different, not only in terms of the number of projects carried out, but also in the areas studied.

The usual channel for disseminating the results of the scientific community is via publication in scientific journals. Due to their characteristics, a large part of the results of research in alcohol and drug misuse is published in journals of psychology and related areas. By studying these publications one may obtain data about and comparisons between EU countries, as well as detect those areas in which research is concentrated and determine characteristics of both the authors and the journals. A study covering a long period should, furthermore, permit studying temporal evolution, variations and trends in this field of research. The study of scientific production of a country in a particular field, based on international bibliographic data, is one of the most widely used methods of obtaining indicators of such production and its evolution (European Commission 2002).

Studies have been conducted which analyse the scientific production in drug addiction. Previous studies have not, however, used databases specific to the field of psychology (e.g. some studies have used Index Medicus, Medline or Excerpta Medica) (Boxenbaum & Jaffe 1982; Abel & Welte 1986; Abel 1986; Guardiola & Cami 1988; Hughes & Oliveto 1990; Guardiola & Sánchez-Carbonell 1993; Guardiola & Sánchez-Carbonell 1994; García-López 1999), they consider short periods of time (2, 5 or 10 years) (Liguori & Hughes 1996), do not report up-to-date results (the majority analyse the decade of the 1980s or early 1990s) (Guardiola & Cami 1988; Budney et al. 1992; Howard & Howard 1992), are limited to only one country (e.g. Spain) (Guardiola & Cami 1988; Guardiola & Sánchez-Carbonell 1993; Guardiola & Sánchez-Carbonell 1994; García-López 1999), only one language (Liguori & Hughes 1996), or a specific field within the area of addictions (alcoholism, smoking, cocaine epidemic, psychotherapy, qualitative studies, etc.) (Moll & Narin 1977; Higgins 1990; Budney et al. 1992; Tolsma et al. 1992; Liguori & Hughes 1996; Hughes & Liguori 1997; Fountain & Griffiths 1999; García-López 1999) and do not make large-scale comparisons between countries (no study includes all 15 EU countries). Other studies have focused on the analysis of specific journals (Sánchez-Carbonell & Guardiola 1992; Tolsma et al. 1992) and on the impact they have in the scientific community (Jones 1999).

PsycINFO is a department of the American Psychological Association (APA) dedicated to creating products that make it easier for researchers to locate psychological literature relevant to their research topics (APA 2004a). One of the most relevant products is the electronic database PsycINFO, an abstract (not full-text) database. The main PsycINFO database contains almost 2 million references to psychological literature from the 1800s to the present, from journal articles, books, book chapters, technical reports and dissertations. In 2004 it covered 1928 psychological journals from 50 different countries in 24 languages, although more than half the references are North American and 85% of references are in English. The references contain three basic types of information: a bibliographic citation, which includes the document’s title and the authorship and publishing information to locate the original, a summary and a standardized subject indexing. Every record in PsycINFO databases receives a classification code, which is used to categorize the document according to the primary subject matter. A Thesaurus is also available along with an alphabetical index of keywords. Due to its characteristics, the PsycINFO database is used widely in the field of psychology.

Given the above considerations, the objective of the present study was to analyse the scientific production in the field of alcohol and drug misuse (tobacco included) in the 15 member countries of the European Union, over a period of 25 years. The source of all data was PsycINFO.

MATERIALS AND METHODS

In December 2002 the PsycINFO database was searched using the WebSpirs version by SilverPlatter, produced by the APA. References were selected for articles which met the following criteria:

• classified with codes 2990 (drug and alcohol usage), 3233 (substance abuse and addiction) or 3383 (drug and alcohol rehabilitation) (the PsycINFO Content Classification Code System, APA2004b);
• published by an institution based in a country which was a member of the EU in 2000: Austria, Belgium, Denmark, Finland, France, Germany, Great Britain, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and Sweden. As Great Britain (or United Kingdom) is not included in PsycINFO in the affiliation field, articles were searched for England, Northern Ireland, Scotland and Wales and analysed altogether; and
• published in the 25-year period from 1976 to 2000 (both inclusive).
The following data were analysed for each article: the year of publication, the language of publication, the first author’s address (country), the journal of publication, the authors and the subject of each article (according to PsycINFO classification code). Part of the data were analysed by means of GTmetrics software (Rodríguez Gairín & Urbano Salido 2003), and descriptive statistics were used to report the results.

RESULTS

Temporal evolution of articles

In the 25-year period from 1976 to 2000, a total of 29,986 articles on drug and alcohol misuse were located in PsycInfo, with an increase from 614 in 1976 to 1783 in 2000 and a rate of growth of 190.4% (Fig. 1). For its part, 4,825 references published by an institution based in a EU member country were located, ranged from 43 (in 1979 and 1981) to 359 (in 2000), with a rate of growth of 435.8% (Fig. 2). Thus, the EU published between 10.5% (in 1977) and 21.5% (in 1998) of the articles on drug dependence in PsycINFO.

Country and year of publication

Table 1 presents data on the numbers of publications distributed by EU member country, and grouped by 5-year periods (1976–80, 1981–85, 1986–90, 1991–95 and 1996–2000). The number of publications rose fivefold between the first and last of these periods. Of the 15 EU countries, the country which published most articles was Great Britain (n = 1,864; 38.6%), followed by Germany (505; 10.5%), Spain (501; 10.4%) and Sweden (445; 9.2%). No references were found for Luxembourg. Table 1 reveals the growth experienced by the different European Union countries. To show this, production in the first 5-year period was taken as a reference value (except Portugal, without references in that period). The Netherlands had the greatest increase, followed by Spain, Denmark and Greece.

When cumulative percentages were analysed, the results showed that almost one-third (32%) of the articles were published during the last 5 years in contrast with the first 5-year period (from 1976 to 1980), when only 6.5% of the papers were published. Eighty-one per cent of the total production was published in the last 15 years analysed.

Subject areas

According to the PsycINFO Classification Code, articles on drug dependence from EU dealt with drug and alcohol usage (n = 625; 13.0%), substance abuse (n = 2,584; 53.6%) and drug and alcohol rehabilitation (n = 1,665; 34.5%); 49 articles were classified with two codes. In the 25-year period study, the percentage of articles indexed as

![Figure 1](https://example.com/image1.png)

**Figure 1** Articles on drug and alcohol misuse indexed in PsycINFO: 1976–2000

![Figure 2](https://example.com/image2.png)

**Figure 2** European Union articles on drug and alcohol misuse indexed in PsycINFO 1976–2000
'drug and alcohol' usage changed from 26% in 1976–80 to 10.2% in 1986–90, the percentage of articles indexed as 'substance abuse' increased from 47.1% in the first 5-year period to 56.4% in the last one, and the percentage of articles included in 'drug and alcohol rehabilitation' also increased, from 28.8% in the first 5-year period to 32.9% in the last one, with a maximum in 1986–90 (37.9%). Some articles also included other descriptors such as 'behaviour disorders and antisocial behaviour' (n = 530), 'clinical psychological testing' (n = 140), 'research methods and experimental design' (n = 28), 'psychopharmacology' (n = 28), 'criminal behaviour and juvenile delinquency' (n = 28), 'psychosocial and personality development' (n = 22), 'sports' (n = 16) and 'personality traits and processes' (n = 15).

Language of publication

The articles were published in 13 different languages. More than three-quarters were published in English (78.6%). Spanish was the second most common language (6.8%), followed by French (4.5%), German (4.3%), Dutch (2.7%) and Italian (2.5%). In the last 5-year period (1996–2000), the percentage of articles in English reached 85.4%. Apart from English, Spanish was the only language which increased its presence over the period under study (Table 2).

Journals

The 4825 articles were published in 519 different journals. The number of articles published per journal varied widely; 200 (38.5%) journals published one article, 180 (34.7%) journals published two to five articles, 69 (13.3%) published six to 10, 22 (4.4%) published 11–15, 23 (4.4%) published 16–30 and 25 (4.8%) published more than 30. Table 3 shows the 30 journals which published 25 or more articles; of the eight publishing more than 100 (Acta Psychiatrica Scandinavica, Addiction, Addiction Research, Alcohol and Alcoholism, Alcoholism: Clinical and Experimental Research, British Journal of Addiction, British Journal of Psychiatry, Drug and Alcohol Dependence and Substance Use and Misuse), six are specific to the field of drug or alcohol dependence and two are specific to psychiatry.

<table>
<thead>
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<td>4 (0.6)</td>
<td>14 (1.3)</td>
<td>24 (1.9)</td>
<td>28 (1.8)</td>
<td>700</td>
<td>74 (1.5)</td>
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<td>7 (1.1)</td>
<td>10 (0.9)</td>
<td>10 (0.8)</td>
<td>17 (1.1)</td>
<td>131</td>
<td>57 (1.2)</td>
</tr>
<tr>
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<td>19 (3.0)</td>
<td>22 (2.0)</td>
<td>21 (1.7)</td>
<td>18 (1.2)</td>
<td>900</td>
<td>82 (1.7)</td>
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<tr>
<td>Finland</td>
<td>12 (3.8)</td>
<td>29 (4.6)</td>
<td>44 (4.0)</td>
<td>64 (5.1)</td>
<td>57 (3.7)</td>
<td>475</td>
<td>206 (4.3)</td>
</tr>
<tr>
<td>France</td>
<td>10 (3.2)</td>
<td>48 (7.7)</td>
<td>99 (9.1)</td>
<td>51 (4.1)</td>
<td>78 (5.1)</td>
<td>780</td>
<td>286 (5.9)</td>
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<td>46 (14.7)</td>
<td>73 (11.6)</td>
<td>91 (8.3)</td>
<td>101 (8.1)</td>
<td>194 (12.6)</td>
<td>422</td>
<td>505 (10.5)</td>
</tr>
<tr>
<td>Great Britain</td>
<td>147 (47.1)</td>
<td>208 (33.2)</td>
<td>443 (40.5)</td>
<td>499 (39.9)</td>
<td>567 (36.7)</td>
<td>386</td>
<td>1864 (38.6)</td>
</tr>
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<td>0 (0)</td>
<td>7 (0.6)</td>
<td>16 (1.3)</td>
<td>9 (0.6)</td>
<td>900</td>
<td>33 (0.7)</td>
</tr>
<tr>
<td>Ireland</td>
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<td>9 (1.4)</td>
<td>13 (1.2)</td>
<td>23 (1.8)</td>
<td>16 (1.0)</td>
<td>400</td>
<td>65 (1.3)</td>
</tr>
<tr>
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<td>21 (6.7)</td>
<td>45 (7.2)</td>
<td>80 (7.3)</td>
<td>90 (7.2)</td>
<td>111 (7.2)</td>
<td>529</td>
<td>347 (7.2)</td>
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<tr>
<td>Netherlands</td>
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<td>46 (7.3)</td>
<td>79 (7.2)</td>
<td>88 (7.0)</td>
<td>130 (8.4)</td>
<td>4333</td>
<td>346 (7.2)</td>
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<td>100</td>
<td>14 (0.3)</td>
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<tr>
<td>Spain</td>
<td>15 (4.8)</td>
<td>50 (8.0)</td>
<td>83 (7.6)</td>
<td>161 (12.9)</td>
<td>192 (12.4)</td>
<td>1280</td>
<td>501 (10.4)</td>
</tr>
<tr>
<td>Sweden</td>
<td>34 (10.9)</td>
<td>86 (13.7)</td>
<td>102 (9.3)</td>
<td>100 (8.0)</td>
<td>123 (8.0)</td>
<td>362</td>
<td>445 (9.2)</td>
</tr>
<tr>
<td>Total</td>
<td>312</td>
<td>627</td>
<td>1093</td>
<td>1250</td>
<td>1543</td>
<td>495</td>
<td>4825 (100)</td>
</tr>
</tbody>
</table>


Authors

When articles were analysed according to the number of authors (we did not include in the analysis the 443 articles with ‘et al.’ in the field ‘author’), a reduction in the articles signed by one or two authors is shown, which decreases from 71.3% in 1976–80 to 41.6% in 1996–2000; simultaneously, an increase in articles signed by four authors was found (from 9% to 15.5%). In the period 1996–2000, 23.6% of articles were signed by more than four authors. Globally, in the 25 years studied, 68% of articles were signed by more than one author. Thus, the index of collaboration between 1996 and 2000 was 3.24. When the authors were ordered by productivity, between the 25 who published more than 20 articles, 18 come from Great Britain, three from Sweden, two from Germany, one from Finland and one from Spain.
The issue of publications on drug dependence has been studied in recent decades but most studies of this area of research have been partial, and no specific analysis has been made of publications dealing with drug dependence in the context of the 15 countries of the European Union for a 25-year period. Therefore, the present study contributes to the knowledge of publications in this area of research. Nevertheless, the results of this study should be interpreted taking into account the limitations inherent in the database employed. As PsycINFO is a psychologi-cal-orientated database, other studies are needed to have a more complete understanding of EU research on drug and alcohol misuse. These studies could analyse other databases with different scopes and coverages, such as ETOH, focused on alcohol use and abuse, or Medline and EMBASE, that mainly index biomedical journals.

This study shows that scientific interest in drug dependence has grown during the 25 years studied, as reflected in the increase in the number of articles published in the database. The table below shows the language of publication of these articles from 1976 to 2000, grouped by 5-year periods.

### Table 2: Language of publication of the 4825 articles on drug dependence from the European Union indexed in PsycINFO (1976–2000) grouped by 5-year periods.

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<tbody>
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<td>Danish</td>
<td>0 (0)</td>
<td>5 (0.8)</td>
<td>2 (0.2)</td>
<td>1 (0.1)</td>
<td>1 (0.1)</td>
<td>9 (0.2)</td>
</tr>
<tr>
<td>Dutch</td>
<td>2 (0.6)</td>
<td>38 (6.1)</td>
<td>56 (5.1)</td>
<td>29 (2.3)</td>
<td>5 (0.3)</td>
<td>130 (2.7)</td>
</tr>
<tr>
<td>English</td>
<td>226 (72.4)</td>
<td>403 (64.3)</td>
<td>789 (72.2)</td>
<td>1059 (84.7)</td>
<td>1317 (85.4)</td>
<td>3794 (78.6)</td>
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<td>1 (0.2)</td>
<td>0 (0)</td>
<td>3 (0.2)</td>
<td>0 (0)</td>
<td>4 (0.1)</td>
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<tr>
<td>French</td>
<td>20 (6.4)</td>
<td>49 (7.8)</td>
<td>88 (8.1)</td>
<td>18 (1.4)</td>
<td>31 (2.0)</td>
<td>219 (4.5)</td>
</tr>
<tr>
<td>Greek</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>3 (0.2)</td>
<td>1 (0.1)</td>
<td>4 (0.1)</td>
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<tr>
<td>German</td>
<td>36 (11.5)</td>
<td>47 (7.5)</td>
<td>47 (4.3)</td>
<td>31 (2.5)</td>
<td>47 (3.0)</td>
<td>208 (4.3)</td>
</tr>
<tr>
<td>Italian</td>
<td>14 (4.5)</td>
<td>26 (4.1)</td>
<td>42 (3.8)</td>
<td>19 (1.5)</td>
<td>21 (1.4)</td>
<td>122 (2.5)</td>
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<td>Portuguese</td>
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<td>Spanish</td>
<td>14 (4.5)</td>
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<td>84 (6.7)</td>
<td>119 (7.7)</td>
<td>329 (6.8)</td>
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<td>Swedish</td>
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<td>2 (0.2)</td>
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<td>1 (0.1)</td>
<td>1 (0.1)</td>
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</tr>
<tr>
<td>Total</td>
<td>312</td>
<td>627</td>
<td>1093</td>
<td>1250</td>
<td>1543</td>
<td>4825</td>
</tr>
</tbody>
</table>

*One article in Arabic and another in Czech.

### Table 3: Journals that published 50 or more articles on drug dependence from the European Union (1976–2000) ranked by total number of articles.

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<td>Addiction*</td>
<td>46</td>
<td>49</td>
<td>234</td>
<td>262</td>
<td>169</td>
<td>760</td>
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<td>Alcohol and Alcoholism</td>
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<td>48</td>
<td>76</td>
<td>137</td>
<td>293</td>
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<td>Drug and Alcohol Dependence</td>
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<td>32</td>
<td>58</td>
<td>59</td>
<td>60</td>
<td>220</td>
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<tr>
<td>British Journal of Psychiatry</td>
<td>27</td>
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<td>35</td>
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<td>148</td>
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<tr>
<td>Substance Use and Misuse**</td>
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<td>Acta Psychiatria Scandinavica</td>
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<tr>
<td>Addiction Research</td>
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<td>0</td>
<td>0</td>
<td>30</td>
<td>72</td>
<td>102</td>
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<tr>
<td>Tijdschrift voor Alcohol, Drugs en andere</td>
<td>0</td>
<td>30</td>
<td>42</td>
<td>26</td>
<td>1</td>
<td>99</td>
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<td>Psychotrope Stoffen</td>
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<tr>
<td>Journal of Studies on Alcohol</td>
<td>11</td>
<td>13</td>
<td>11</td>
<td>19</td>
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<tr>
<td>Addictive Behaviors</td>
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<td>6</td>
<td>1</td>
<td>12</td>
<td>6</td>
<td>50</td>
</tr>
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*Formerly British Journal of Addiction; **formerly International Journal of the Addictions.
by the articles indexed in PsycINFO. PsycINFO is one of the few databases which allows comparisons between countries to be made as all references include the name of the institution and the country where it is based. The fact that it includes only affiliation details of the first author, and that references can be retrieved only via this item, means that production is associated with the institution rather than the author. Thus articles by EU authors are excluded when, for whatever reasons (sabbatical in another country for example), they appear with an affiliation different from their country, while articles by non-European authors are included if they worked in a European institution. Another characteristic of PsycINFO is that it is a mixed database, in which 650 journals are indexed ‘cover to cover’ and 300 additional journals have every article selected (‘total select’); from the remaining titles, PsycINFO staff examine each article and select only those that have psychological relevance (APA 2004c). When inspecting the results it must be considered that, although PsycINFO is the most used database in psychology, different results could be obtained if biomedical databases were studied.

The number of EU publications on drug dependence rose over the course of the 25 years studied. The observed increase of publications in this area, particularly notable in the 1980s, agrees with the results of previous studies. Budney et al. (1992), studying the period 1966–90, found that cocaine, heroin and marijuana references indexed in Index Medicus increased significantly in the period 1983–90. Specific areas of addiction, such as smoking, have also shown an increase in production. Hughes & Liguori (1997) found that the number of articles per year on smoking/nicotine in humans increased fivefold from 1967 to 1994 compared to twofold for Medline as a whole, and a study that analysed the period 1967–88 by Hughes & Oliveto (1990) reported that the number of articles dealing with treatment for alcohol and drug use disorders appeared to be growing, especially over the last 8 years analysed. The increase in the total number of publications may be due to the rise in the number of journals indexed by the database, whether because they were new, or because the database broadened its coverage. However, the number of articles on drug dependence in PsycINFO has grown comparatively more than the number of articles indexed, to around 3.6% during the last 5-year period, and the number of articles on drug dependence from the EU rose more than in the database as a whole. Thus, while in 1976 PsycINFO indexed 614 articles on drug dependence (2.7% of all articles indexed) and of these 67 (10.9%) were from the EU, in 2000, 3.6% of PsycINFO articles were on drug dependence but of these 20.1% were from the EU; in other words, these represented a percentage which was almost double that at the start of the study period.

Focusing on the comparison between EU member countries, it may be observed that Great Britain’s production is the largest, alone representing 40% of the total production. A second group—Germany, Spain and Sweden—accounts for around 10% each, and together with Italy, the Netherlands and France publish half the articles indexed in PsycINFO on drug dependence. A recent study on the global scientific impact of the different nations published in Nature (King 2004) has also shown that the United Kingdom leads the EU in number of publications, followed by Germany. However, whereas in Nature’s analysis third and fourth places correspond to France and Italy, the analysis of drug dependence performed in the present study places Spain and Sweden third and fourth.

It must also be taken into account that although national contribution to an area of scientific research in terms of raw publication counts is clearly an important indicator, it is also useful to compare these figures with other data. Country rankings have been found to vary dramatically when production is expressed for example in terms of population, gross domestic product, number of people engaged in research, expenditures on research or other socio-economic indicators, not only for research in general (King 2004) but also for specific areas, such as pharmacology (Guardiola et al. 1995). An analysis of this kind is required in order to obtain a more complete and accurate idea of the situation of alcohol and drug misuse research in the EU.

Subject areas

The classification of articles by the Classification Code is too general. The three subcategories employed in the present study belong to different categories of this Code (Social Processes and Social Issues, Psychological and Physical Disorders and Health and Mental Health Treatment and Prevention) and it is difficult to distinguish between them because they correspond to similar concepts. Retrieval of articles via the ‘key concepts’ or the ‘major descriptors’ ought to be more suitable, but the fact that each article is assigned several (and sometimes many) descriptors of this type, added to the high number of possible descriptors in these fields, also does not facilitate the classification by subject as it involves a switch from a very broad category to another very detailed one.

Publication language

The most used language is English, as it is in PsycINFO as a whole; furthermore, an upward trend in its use was observed. Moll & Narin (1977), in a study on alcoholism publications in 1977, observed even then that English
was acquiring an ever more important role as the language of choice for publications in this field. They reported that in 1967, 51% of articles were in English and in 1973 this figure was 68%. For authors in the EU English seems to be the most attractive choice as it increases the possibility of being read by a broader spectrum of members of the scientific community. It is difficult for an article published in Finnish, Swedish or Dutch to be read by researchers in other European countries, or in other parts of the world. The lesser use of Dutch, French or German does not appear to be due to a fall in the productive capacity of these countries, but rather to the accepted fact that publishing in English increases diffusion. Some European associations in the public health field seem to take this viewpoint, and have chosen English as the language of publication of their journals. Thus, for example, the European Journal of Epidemiology is published in Holland, but in English. In psychology, a similar thing happens with the European Association of Psychological Assessment, which publishes the European Journal of Psychological Assessment and the European Association for Research on Learning and Instruction which publishes Learning and Instruction, both journals in English from a publisher in Germany. Another case is that of the Danish journal Acta Psychiatrica Scandinavica, also published entirely in English. It has been noted repeatedly that English has become the language of scientific diffusion internationally (Villar 1988; Olivier, Casseyre & Vayssearat 1989; Garfield & Welljams-Dorof 1990; Baños et al. 1992). It is also argued that language seems to be an important factor for highly cited papers and a handicap for non-English-speaking countries (Valderrama, Aleixandre & Castellano 2004); in this sense, the use of English could explain the scientific impact of smaller non-English speaking countries such as Denmark, the Netherlands and Sweden, which have a high propensity to publish in international journals published in English (European Commission 2002).

The only language which has experienced a rise over the study period is Spanish, reflecting Spain’s scientific progress in this field, and the incorporation of the Spanish journal Adicciones into PsycINFO during the period studied. It is possible, however, that the impact of authors publishing in Spanish is less than that of those publishing in English, as happens in the fields of biomedicine (Baños et al. 1992) and pain (Guardiola & Baños 1993).

Journals

During these 25 years, European institutions published their articles in a wide range of journals (521) but, unlike other studies carried out referring to Spain (Guardiola & Camí 1988; Sánchez-Carbonell & Guardiola 1992; Guardiola & Sánchez-Carbonell 1993), publication is concentrated in fewer journals. For example, in a study of Spanish scientific production on drug dependence using Medline (Guardiola & Sánchez-Carbonell 1993) it was observed that 60% of the journals published only one article on drug dependence, and the proportion of journals publishing 10 or more articles was only 7%. Similarly, other authors (Aleixandre Benavent et al. 2000) found that the 2181 articles on designer drugs indexed by Medline were published in 414 different journals.

The most productive journals, as is to be expected from analysis of the language of publication, tend to be in English although the list also includes some in other languages. As addiction to drugs and to alcohol is a multidisciplinary subject, the main area of interest of the journals where these topics are published varies widely (Arciniega & Miller 1997; Aleixandre Benavent et al. 2000). In the present study, journals specializing in addiction predominate in terms of production, followed by psychiatric and psychological journals, and lastly those of a more general nature.

Over the 25 years studied, some journals have changed their name (for example, Addiction formerly British Journal of Addiction, and Substance Use and Misuse formerly International Journal of the Addictions), others have initiated publication (Drug and Alcohol Review began in 1990), while yet others were not indexed until several years after beginning publication (Adicciones came out in 1989 but was indexed for the first time only in 1997). To publish English abstracts is a requirement in many abstracting and indexing services. Some non-English journals did not begin to publish English abstracts until the 1990s; as a result it influenced their inclusion in bibliographic databases and was reflected as an increase of articles retrieved during the period 1976–2000. Facts such as these must be considered when carrying out studies of this nature.

Authors

With regard to the number of authors per article, it was observed that 57% of articles were signed by one or two authors. Because 443 articles used the expression ‘et al.’ calculation of the index of collaboration may be subject to a certain degree of error, hence it was calculated only for the last 5-year period, in which ‘et al.’ was used in only 40 of the 1503 articles. The index of collaboration thus calculated was 3.24, higher than that of journals specific to this field, such as Adicciones [2.7 in the period 1996–2000 (Arbinaga, 2002)] and Revista Española de Drogodependencias [2.61 between 1990 y 2000 (Quilés, Espada & Méndez, 2000)], but lower than the figure for Spanish journals on drug dependence indexed in IME, Medline, Psyclit and Science Citation Index [4.1 between 1989 and 1998 (Aleixandre et al. 2000)]. Collaboration is also
higher than that found in 223 articles on therapeutic communities indexed in Medline between 1987 and 1992, where 39% of articles were by a single author (Nieminen & Isohanni 1997).

It was not possible to calculate the number of distinct authors participating in articles. Totalling yields a figure of 7961 authors, but a detailed analysis showed that the true number of authors was noticeably lower, as a given author could appear cited in several different ways. For example, Michael Gossop had four variants: Gossop, Michael; Gossop, M; Gossop, Michael R.; and Gossop, M. R. This problem is imputable not only to the journals, which have different styles for writing surnames and forenames, but also to the fact that these differences are difficult to unify in a database of the size of PsycINFO. According to Jordan (1997), the authors themselves must bear part of the responsibility as they tend to switch backwards and forwards over the use of their forenames and initials. Regardless of the reason, this inconsistency impedes an analysis of the productivity of many authors, and makes document searches for a particular author difficult. We have corrected this problem manually in elaborating the list of the most productive authors.

Whereas Great Britain’s production represents 38.6% of the European Union total, the percentage of British authors with more than 20 indexed articles was 72% (18 over 25), suggesting the existence of a nucleus of collaboration, possibly centred around the Society for the Study of Addiction. A study of the most prolific authors indicates that in Great Britain and Sweden there are stable drug dependence research groups, and stresses the importance of groups of this nature for the advancement of science in any field.

Some considerations

When analysing a bibliographic database such as PsycINFO, unlike the case of a bibliometric analysis of a single journal, it must be borne in mind that the journals come from different fields of knowledge, are written in different languages and use different styles of publication (Vancouver, American Psychological Association, Harvard, styles specific to the journal, etc.), a fact which may make it difficult to search for particular authors or subject classifications. One must also be aware of the documentary noise produced by studying affiliations. An example could be the following: U Pant, Prince of Wales Medical Cull, India; this record was retrieved via the AF (affiliation) field using the search term Wales (part of Great Britain). To avoid such situations we were obliged to check all results manually. The fall in EU production observed between 1979 and 1981 is analogous to a fall occurring in the PsycINFO database, and particularly in articles on drug dependence. Hence rises and falls in the scientific production in a given field must always be viewed in the light of the evolution of the database itself, in order to avoid erroneous interpretations.

Studying the scientific production in such a specific area as alcohol and drug misuse over a period of 25 years allows certain conclusions to be drawn regarding its evolution. Scientific production in drug dependence has grown more than psychology as a whole, and reached a maximum in the mid-1990s. The contribution of the 15 EU countries has also risen throughout the period, and represented 20% in 2000. Great Britain’s production is the greatest, representing 40% of the total. English is the most used language, reaching a level of 85% in the last 10 years. Although journals vary widely in terms of their main subject area, articles are concentrated in specific journals on drug dependence and psychiatric journals. The difficulties experienced in identifying the authors who participated in the articles lead to the recommendation that authors should be more consistent in the use of their forenames and initials.

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