This study analyse the evolution and characteristics of scientific production on intervention programmes with gender violence perpetrators performed in Spain. The standard bibliometric indicators were applied to 148 studies identified. The greatest productivity is focused between 2008 and 2010 and the largest number of records corresponds to articles in specialised scientific journals. As far as authorship is concerned, an analysis of the number of studies per person indicates that the results obtained are only initially consistent with Lotka’s Law, that is, there are a majority of not very productive authors and a minority who publish frequently, but the data do not fit this law. An analysis of collaboration between authors enables us to determine the existence of one “Social Circle” or “Invisible College”, at least. Most of the records analysed focus on the description of one or several intervention programmes with men who abuse their partner. Results show that there are progressively more evidence based studies on batterers and their treatment.
1. INTRODUCTION

As revealed by different reports by the World Health Organization (WHO) (Heise & Garcia-Moreno, 2002, WHO, 2013) and the United Nations (2006), one of the most common forms of violence against women is that inflicted by their male partner. This violence comprises a whole range of coercive sexual, psychological and physical acts inflicted against adult or teenage women by their current or previous partner without their consent (United Nations, 2006). Although in Spanish law (since Organic Law 1/2004, of 28 December, on Integrated Protection Measures against Gender Violence) this violence is called gender violence, in national and international scientific literature it is also known by other names (such as domestic violence, spousal abuse, violence against women in the couple, intimate partner violence…) (Ferrer & Bosch, 2014).

This form of violence is not a new phenomenon, yet in recent years a process of reporting, discussion, visualization and increased social awareness of this problem has arisen, which has led from it being considered a private, individual problem to it being understood as a social problem (De Miguel, 2005; Ferrer & Bosch, 2006). Practically in parallel with this process of visualization and raised awareness, there has arisen the concern to address both protection of those who suffer this violence (women and their sons and daughters) and the treatment, re-education or rehabilitation of the men who perpetrated it. This concern is reflected, for instance, in: the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), adopted in 1979 by the General Assembly of the United Nations; the Platform for Action of the IV World Conference on Women, convened by the United Nations and held in Beijing in 1995; the Conference of experts on measures to combat male violence against women, held in Vienna in 1998; the Ministerial Conference on violence against women, held in Cologne in 1999; the Recommendation Rec(2002)5 on the protection of women against violence, adopted in 2002 by the Committee of Ministers of the Council of Europe; or the International meeting of experts on men, masculinity and gender of the United Nations division for the advancement of women, held in Brasilia in 2003.

In this context, and with the aim of complementing prevention and care programmes for victims of gender-based violence, there emerged between 1970–1980 in the USA and Canada the first intervention programmes for men who had perpetrated this violence. These programmes reached Europe in the 1980s, becoming established, for instance, in Germany in 1984 or in Norway in 1986 (Geldschläger et al., 2010). In Spain they were implemented for the first time in 1995 when Professor Enrique Echeburúa and his team at the University of the Basque Country, in collaboration with the Emakunde-Basque Institute for Women, carried out the first interventions along these lines (Echeburúa, De Corral, Fernández-Montalvo & Amor, 2004; Echeburúa, Fernández-Montalvo & Amor, 2006). And, after the Organic Law 1/2004 came into force, intervention programmes for batterers have become essentials tools for intervention both within and outside prisons to enforce the terms in the sentences pronounced by Spanish judges (Millana, 2011). In fact, this law established the obligation for gender violence offenders with suspended prison sentences and sentences not higher than two years of prison to participate in a treatment programme. Some estimates point towards there being over 2,500 of these programmes in the United States, over 500 in Europe and over 50 in Spain (Geldschläger, Ginés & Ponce, 2009).

This issue has aroused the interest not only for practitioners and politicians, but also for researchers. And, as a result, there are a growing number of publications on the characteristics and impact of these programmes. For instance, some systematic reviews have been carried out in order to analyse the empirical studies published on men who abuse their partners, including, among others, those regarding interventions conducted with these men (Carrasco-Portiño, Vives-Cases, Gil-González & Álvarez-Dardet, 2007; Hamilton, Koehler & Losel, 2013) and at least a review of psychotherapy-oriented treatments conducted in prisons for batterer was carried out (Millana, 2011). These works have stimulated intense debates on the theoretical framework that should be the basis for these programmes, their relevance and their effectiveness (Boira & Tomás-Aragónés, 2011; Carbajosa, Boira & Tomás-Aragónés, 2013).

In this context, the present study was developed with the purpose of conducting an objective review of the state of scientific production on intervention programmes performed in Spain with men who abuse their partners. One way of studying this body of literature would be to apply bibliometric procedures. Bibliometrics is increasingly used to systematically measure scientific output in order to understand the genesis of a discipline or area of knowledge and to map its publication pattern (Guilera, Barrios & Gómez-Benito, 2013). Specifically, the main aim of the present study was to analyse the evolution and characteristics of scientific production on intervention programmes with gender violence perpetrators performed in Spain, from the first...
published paper to the present day. To this aim, standard bibliometric indicators were applied. To our knowledge this is the first study to address this aim in Spain.

2. METHOD

2.1 The unit of the analysis
The unit of analysis of this study are all the publications concerning intervention programmes performed in Spain with men who abuse their partners.

2.2 Materials
Articles from specialised journals, books, book chapters, research reports, dissertations and presentations at conferences and congresses, published on paper or electronically and/or to be found in the repositories of universities or organisations that convened or were responsible for the events in question were included.

2.3 Design and procedure
A retrospective ex post facto type aggregate study was performed (Montero & León, 2007) which consisted of analysing already published documents. Specifically, a bibliometric study was carried out.

Given the proposed aim, in order to perform the search of scientific production on intervention programmes performed in Spain with men who abuse their partners the following key words were used in Spanish: intervention programmes, re-education programmes, treatment, combined with abusers, perpetrators and aggressors and with domestic violence, violence against women, violence against women in the couple, gender-based violence, and their corresponding translations into English (in this case the key words Spain and/or Spanish were added in order to find studies carried out in this country). These keywords were combined together as show in Figure 1. And, in order to retrieve the available scientific literature on the subject, the search was performed in the topic field (which runs the search in titles, keywords and abstract) when the databases permitted it (e.g. DIALNET offers only a search by the title).

As the earliest record on the subject found dated from 1994, in all the databases that allowed it, the search focused on the period comprising between January 1994 and January 2013.

Figure 1. Key words for searching.

In accordance with the recommendations on use (Perestelo-Pérez, 2013), in order to locate the publications under review, primary databases (which basically allowed access to individual publications such as presentations at conferences and congresses, articles in specialised journals, dissertations, books or book chapters) and secondary databases (which include publications of abstracts or summaries) were consulted. The databases consulted were mainly DIALNET (http://dialnet.unirioja.es/), Scientific Electronic Library Online (SciELO), Summaries ISOC (database on Social Sciences and Humanities of Spanish National Council, CSIC), Google Academic and TESEO (database of Spanish Doctoral Dissertations). These were chosen as they covered a greater spectrum of publications conducted in Spain and because they included both the most visible scientific journals and the so-called grey literature (in this case, articles in some on line journals, presentations at congresses, dissertations, book chapters, or technical reports by public institutions). In order to complete the search, international databases (such as MEDLINE, PsyINFO or Web of Knowledge) were also consulted to locate publications conducted in Spain that had been published in international journals. Besides, the bibliographic references of the
records obtained were examined in order to locate other records that were relevant to the subject (search performed in ascending order) and this operation was repeated until the main line of the subject disappeared. This strategy was particularly useful in locating grey literature.

Since some of the records are found in more than one database, and as in one and the same database different search strategies can produce overlapping or duplicate results, a selection process was carried out in such a way that duplicates were eliminated and were only considered a single time. The records generated through this procedure were subsequently reviewed in order to eliminate also the ones that did not strictly fit the aim of the study proposed. Along these lines, the basic inclusion criterion was for the publications to focus on intervention, re-education or treatment programmes performed in Spain for men who abuse or has abused their partners. Publications focusing on describing the characteristics of the abusers (both in general and as participants in these programmes) were excluded.

Finally, in the search performed, we adopted a multidisciplinary approach that went beyond the sources focusing on psychology, as the subject under review has also been studied in other scientific fields (such as criminology, criminal justice, victimology, sociology, law, public health, etc.). In this sense, we have used not only psychological databases but general and multidisciplinary sources (as aforementioned DIALNET, ISOC, etc.).

2.4 Information Analysis

A total of 148 records were obtained from this selection which were imported to a database (RefWorks) and an Excel spreadsheet was drawn up where the main data of each record (year of publication, source and country of the publication, language publication, number, sex and affiliation of authors and subject of the study) were incorporated in order to subsequently proceed to their analysis. Descriptive statistics were used to study the main variables. In addition, other bibliometric indicators were calculated to study author's production (Lotka’s Law and Collaboration Index).

3. RESULTS

We identified 148 records in all focusing on interventions carried out in Spain with men who abuse their partners corresponding to the period analysed, which, therefore, complied with the inclusion criteria established. As can be observed in Figure 2, the years with the greatest production are 2010, 2008, 2009 and 2004, with the greatest productivity concentrated in the period 2008–2010, in which 46.62% of the records found are dated. It is conceivable that the approval of Organic Law 1/2004 and the regulations derived therein are not unrelated to this evolution.

As can be observed in Figure 3, the largest number of records corresponds to articles in specialised journals (62), followed by studies presented at general themed congresses (22) and book chapters (21). Doctoral dissertations (5) constitute the type of document found least frequently.
among the records obtained, and do not appear until 2009.

**Figure 3. Distribution according to type of.**

The isolation index was 96.6%, i.e., 143 of the 148 records revised were published in Spain or presented at Spanish conferences. In fact, only two papers were published in the USA and three presentations took place at Portuguese conferences and only 4.1% of the records were written in English (two of them in USA journals and four of them in Spanish journals that publish in English). This result could be interesting to illustrate one of the challenges for non-English researchers, that is, the difficulties to have some impact on the field at the international level if the publication language is other than English.

With respect to authorship, the papers analysed were signed by an average of 1.97 people (range 1-7, SD=0.89). Specifically, 71 of them are signed by a single person (47.97%), 37 by two people (25%), 20 by three people (13.51%), 13 by four people (8.78%) and 5 by between 5 and 7 people (3.38%). The two other papers are the responsibility of an institution and the material authors are not identified.

According to gender, out of the 71 single author publications, 33 are signed by a female author (43.66%) and 38 by a male author (56.34%); and out of the 77 collective authorship publications, in 53 cases the first author corresponds to a male (68.83%) and in 24 to a female (31.17%).

Meanwhile, an analysis of the number of publications per author indicates that the results obtained are initially consistent with what is known as Lotka’s Law (1926), according to which the number of authors who publish n documents (An) on a subject matter is directly proportional to the number of authors of one single document and inversely proportional to n squared. That is, there would be a majority of not very productive authors and a minority that publishes frequently. In fact, with regard to the productivity of authors the data showed that 65.83% of them contributed just one item to the subject. Following the indications of Ruiz Baños (2005), the graphic representation of this finding for the 148 records analysed would be the one presented in Figure 4.

Numerically, Lotka’s law was evaluated using the method described step-by-step by Urbizagástegui (2004), and all the authors of the publications (first authors and collaborators) were considered for the analysis. Specifically, to determine whether the data fitted Lotka’s law the n value was calculated using the generalized inverse power distribution by the minimum least squared method and the Kolmogorov-Smirnov test. With n=1,368 and C=0.301532, at 0.01 level of significance, a critical value of 0.148798 with a maximum deviation of 0.356802, was observed. Therefore, we can conclude that the data do not fitted Lotka’s law.
As far as productivity per person is concerned, the 148 publications analysed are signed by a total of 120 different people. Taking as a basis the criteria of analysis proposed by Crane (1969) and Cole and Cole (1973), it is possible to establish four categories of authors according to productivity: large producers (people who sign 10 or more papers), moderate producers (people who sign between 5 and 9 papers), small producers or ‘hopefuls’ (people who sign between 2 and 4 papers) and ‘passers-by’ (people who sign 1 study).

According to this categorisation, an analysis of the records obtained enables us to conclude that out of all the undersigned (79 people) who participated in the development of only one study, 65.83% would be included in the ‘passer-by’ category. It is worth noting...
that 25 of these ‘passer-by’ authors sign a study that was carried out alone. 21.67% of the undersigned would be included in the category of ‘hopefuls’, who participated in producing 2, 3 or 4 papers (10, 12 and 4 people, respectively).

As far as the most productive authors are concerned, in the above Table (Table 1) a summary of their affiliations and contributions as well as their Collaboration Index (CI) are included, calculated as shown by Díez Zamorano (2003), along with the sum of the positions in which they signed each study, divided by the total number of publications performed, and where solo contributions are given a 0. This index provides information regarding the tendency of each author to work in collaboration or alone and regarding the degree of responsibility assumed in their publications.

In short, as can be observed in the above Table (Table 1), large producers make up 3.33% of the total undersigned (4), who participate in 41.22% of the publications analysed (61); and moderate producers make up 9.17% of the undersigned (11), who participate in 48.65% of the publications analysed (72). From this analysis it can also be concluded that the most productive authors in intervention with men who abuse their partner in Spain come, basically, from the field of psychology and are linked to the university.

As regards collaboration, the CI obtained (see Table 1) show a variable degree of collaboration whose highest expression is María Martínez, Paz de Corral and Pedro J. Amor, authors who usually work with research teams and do not sign any of the contributions analysed alone; whereas Vicente Magro, Heinrich Geldschälager and Santiago Boira would be found at the other extreme, as the authors with the lowest collaboration indices and with most of their publications signed alone.

An analysis of the publications carried out by the most productive authors also offers information regarding the connections between them. In agreement with the definition of Crane (1972) as a groups of collaborators linked together informally, we could talk about “Social circles” (p. 13) or “Invisible Colleges” (p. 10). In particular, and following the recommendations of Peñaranda (Peñaranda, 2004; Peñaranda, Civera, Tortosa, López & Osca, 2009), we will use these terms to analyze the relationship between scientists within a given area from the publication of at least one item in common (“who publishes with whom”). Thus, we can observe the existence of a regular, stable collaboration between Professor Fariña and Professor Arce, and between Heinrich Geldschälager and Álvaro Ponce. What is more, we could talk about the existence of a Social Circle or Invisible College, made up of 6 of the most productive authors and led by Professor Echeburúa, whose cluster can be seen graphically, following the indications of Peñaranda et al. (2009), in the following Figure (Figure 5).

As regards the content analysis of the 148 records obtained, their review and analysis by thematic areas showed, as can be observed in Table 2, that most of them (44.59%) focus on the specific description of one or more intervention programmes with men who abuse their partner, followed by those devoted to performing a general description of these type of programmes and their characteristics and/or reflecting on them (28.37%).
Finally, it is worth mentioning that, out of the different intervention programmes with men who abuse their partner that have been applied in Spain, the ones with a greater number of records devoted to them are the programmes carried out by Professor Echeburúa’s team (which are referred to in 26 of the 148 records analysed), the Galicia programme (described or analysed in 14 of the 148 records), the Contexto programme and the programmes developed in Navarre (which are referred to in 9 of the 148 records analysed) and the Espacio programme (described or analysed in 8 of the 148 records).

4. DISCUSSION

The review carried out enables us to conclude that there is a growing volume of literature devoted to intervention programmes with men who abuse their partners in Spain. In fact, in the systematic review conducted by Carrasco-Portiño et al. (2007) only 6 records corresponding to publications performed in Spain were obtained and, of these, only 3 referred to intervention programmes. Current legislation, specifically Organic Law 1/2004, does not seem to be oblivious to the interest aroused by this issue. Thus, and in compliance with what is laid down in this law, many intervention, rehabilitation or re-education programmes have emerged in Spain, carried out from different agencies (Penitentiary Institutions, Official Schools of Psychologists, non-governmental organizations, associations, universities, councils). These programmes can be grouped in three large categories (Geldschläger et al., 2009, 2010): (a) Programmes in penitentiary centres and in their open sections, specifically for prisoners convicted of crimes related to gender-based violence who attend them voluntarily; (b) Programmes as an alternative penal measure, aimed at abusers condemned to less than two years, who are not admitted to prison but are obliged by law to take part in a re-education programme; and (c) Programmes of voluntary attendance, which take place in a community setting with men who attend voluntarily.

The interest aroused by all these programmes results not only in the number of records obtained and in their increase over time, but also in the way of disseminating the state of affairs and research regarding the issue, as practically half of the records obtained correspond to books or book chapters (24%) and presentations at congresses (25%), whether they are general or specialised in the subject. Because grey literature is a source of data that might not employ peer review, critics have questioned the validity of its data (e.g. in meta-analytic studies). In this case, these results could be useful to know the state of the question. And, in this sense, the results obtained proves that there has been an increase in the number of academic publications and grey literature on this issue, which suggests the recent trend towards

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Number of records</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of a specific programme</td>
<td>55</td>
<td>37.16%</td>
</tr>
<tr>
<td>Description of two or more programs</td>
<td>11</td>
<td>7.43%</td>
</tr>
<tr>
<td>General description of these programmes (e.g., analysis of their characteristics and their origin, description of the psychological or educational techniques that they include...)</td>
<td>22</td>
<td>14.86%</td>
</tr>
<tr>
<td>Reflection on their need, the characteristics they should (or should not) have, difficulties in implementing them, ...</td>
<td>20</td>
<td>13.51%</td>
</tr>
<tr>
<td>Empirical analysis of the results obtained by applying one or several of these programmes</td>
<td>27</td>
<td>18.24%</td>
</tr>
<tr>
<td>Specifications to take into account when applying intervention programmes to a certain group and/or in certain settings</td>
<td>10</td>
<td>6.78%</td>
</tr>
<tr>
<td>Others (analysis of recidivism; quality criteria; opinion of therapists)</td>
<td>3</td>
<td>2.02%</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>100%</td>
</tr>
</tbody>
</table>
a better communication between the academic and the practitioner worlds in the criminal justice in Spain.

As far as the authorship of the publications analysed is concerned, the data showed that a handful of researchers are responsible for most of the literature, whereas the large majority contribute a very small number of publications. The contribution of Professor Echeburúa stands out in particular, not only due to the number of publications in which he has participated (a total of 24, which makes him the greatest producer in Spain on this subject), but rather due to the fact one can speak about the Echeburúa Social Circle or Invisible College, given the relationship and interconnections with other significant contributors analysed. This circumstance is not strange if we bear in mind that, as commented above, intervention programmes with men who abuse their partner were implemented in Spain for the first time in the middle of the 1990s by his team (Echeburúa et al., 2004). The Social Circle or Invisible College concept is used because it is the best-know model of science communication, and it is based on bibliometric studies of science (Lievrouw, 1989). Subsequently, other programmes have been developed and implemented which also have a significant presence in the records analysed, and among the most outstanding ones due to the number of contributions that refer to them, are the ones called Galicia (Arce & Fariña, 2010), Contexto (Lila, García & Lorenzo, 2010), (Boira, 2010) or the therapeutic programme for family abusers in Navarre (Echaúri, Rodríguez de Armenta & Martínez, 2007).

In relation to this issue, it is worth highlighting that practically half of the records analysed specifically focus on the description of one or several of the intervention programmes for abusers that have been developed and implemented in Spain, and there are many more records describing or, occasionally, presenting merely descriptive results (such as the number of men who took part, who finished or improved after doing the programme and their percentage), than those of a strictly empirical nature that focus on presenting the detailed results obtained with the implementation of these programmes.

In short, this study is intended as a first approach to the analysis of the scientific literature on this subject in Spain. Along these lines, it is important to note that, although this was the intended aim for this study, it is also one of its limitations as we are dealing with a contribution limited to a very specific setting and delimited by a particular legislative framework ( Organic Law 1/2004), all of which means the conclusions are localised and it is difficult to extrapolate them to other settings.

On the other hand, even though a significant attempt at comprehensiveness was made, by including a review of different databases and attempting to obtain the maximum possible amount of records corresponding to the so-called grey literature, the results of this review are not fully comprehensive as the databases consulted, although broad, do not – logically – cover all existing studies. It could be said, however, that a large enough systematic search was carried out in order to be able, at least, to make an initial approach to the state of the issue. In fact, the previously mentioned systematic review conducted by Carrasco-Portiño et al. (2007) conducted a search for scientific articles published between January 2000 and June 2005 by consulting ten of the most visible databases on Health Sciences and Social Sciences in Europe and the Americas, and obtained 3 records related to intervention programmes with men who abuse their partner in Spain. The present review, which broadened the search criteria to include another type of scientific documentation (such as books, book chapters, dissertations or presentations in congresses) and incorporated databases focusing on studies conducted in Spain and which incorporate grey literature (such as DIALNET) enabled us to find a total of 36 studies on the subject published between 2000 and 2005.

Finally, it is also worth pointing out that the bibliographic searches were conducted during 2012 and closed in January 2013. Related to this, a possible limitation could arise from the logical delay existing in the incorporation of documents and publications in the databases, in which case it is possible that at the close of these searches there may still have been documents corresponding to 2012 pending publication, which is why they were not taken into account. In any case, the study carried out shows that there are progressively more evidence based studies on gender violence in Spain which helps to avoid subjective interpretations of this sensitive topic.

5. ACKNOWLEDGEMENTS:

This work was carried out within the framework of a research project funded by the Spanish Ministry of Economy and Competitivity (FEM2011-25142).

6. REFERENCES


Organic Law 1/2004 de 28 de diciembre de medidas de proyección integral contra la violencia de...