RESUMEN

El objetivo es lograr una primera aproximación descriptiva-bibliométrica sobre engagement y burnout en voluntarios, puntualizando en el tamaño, crecimiento y distribución de documentos, en la estructura social de autores y en el contenido temático. La muestra estuvo conformada por 104 documentos científicos del portal de bases de datos EBSCO Host entre los años 1983 y 2010. Se utilizaron estadísticos descriptivos simples en el tratamiento de los datos. Se trata de un campo de estudio que aumenta su productividad en los últimos 5 años. El 70% son artículos en revistas con referato. Existe dispersión y escasa continuidad y colaboración entre los autores. Más de 450 descriptores encontrados se concentran en las categorías: estrés, voluntariado, factores psicosociales, compromiso comunitario, participación política, prevención, control y motivación.

Palabras clave: Estudio bibliométrico, engagement, burnout.

ABSTRACT

The objective is to obtain a first descriptive-bibliometric approach about engagement and burnout in voluntary workers focalizing in size, growth, distribution of documents, authors social structure and thematic content. The sample was conformed by 104 scientific documents from EBSCO Host data bases portal between 1983 and 2010. There were used simple descriptive statistics for data analyses. It is a study field which productivity grows since the last 5 years. The 70% of the found publications are peer-reviewed documents. There are dispersion, reduced continuity and collaboration between authors. More than 450 different subjects were found, they are concentrated in the categories: stress, volunteering, psychosocial factors, community engagement, politic participation, prevention, control and motivation.

Key words: Bibliometric Study, Engagement, Burnout

Introduction

Defining volunteering, analyzed literature reveals the following characteristics: based on free will, without payment, activity whose aim is to provide help for other people who need it, contextualized in organizations and programs of social action (Chacon & Vencina, 2002; FISCRMLR, 1999; Gil Calvo, 1995; Gutierrez, 1997; Allen, 2001). Cnaan, Handy and Wadsworth (1996) raise four fundamental dimensions to define volunteerism: a) nature of the action (voluntary, not forced, obligated), b) nature of the reward (without financial reward expected), c) context (associated formally, non-formal) and d) object of the aid (strangers, acquaintances, self-help). The author of the present study adheres to the definition of volunteering by
Vecina (2001) who proposed the following working definition of volunteer: *a person who freely choose to provide some type of help or service to others, which in principle are unknown, without receiving or expecting an economic reward for it and that it works in the context of a formally constituted non-profit organization* (p.54).

Studies have been found evaluating the relationship between psychological variables and participation in volunteer activities, examples are the studies on empathy as a history of volunteering (Barz, 2001; Unger & Thumuri, 1997; Omoto & Snyder, 1995), studies on subjective well-being, satisfaction, and motivation of volunteers (DeHart, 2000; Wilson & Musick, 1999; Van 2000; Chacón & Vecina, 1999; Clary, Snyder, Ridge, Copeland, Stukas, Haugen & Miene, 1998; Witt, 1998; Harlow & Cantor, 1996; Omoto & Snyder, 1995; Ouellette, Cassel, Maslanka & Wong, 1995; Cusack, 1994; Fischer & Schaffer, 1993; Cnaan & Goldberg-Glen, 1991). Social support perceived by the volunteer has been another recurrent variable associated with satisfaction (Tsai, 2001; Wilson, 2000; Christensen, Reininger, Richter, McKeown, & Jones, 1999; Perrino, 1999; Snyder, Omoto & Crain, 1999; Wilson & Musick, 1999; Miller & Rosenbach, 1998). Other investigations have shown the relevance of attitudes both in the home and in the development of voluntary collaboration (Mattis, Jägers, Hatcher, Lawhon, Murphy & Murray, 2000; Shimizu & Liu, 2000; Clary & Snyder, 1999; Kuepper & Bierhoff, 1999; Youniss, McLellan & Yates, 1999; Janoski, Musick & Wilson, 1998; Okun, 1994).

To Maslach and Jackson (1981), *burnout* is a response to a chronic stress whose main features are the physical and psychological exhaustion, a cold and impersonal attitude in the relationship with others and a low performance at work. The literature shows numerous investigations into the working conditions and the syndrome of burnout in the volunteers of the health sector (Cicognani, Pietrantoni, Palestini & Prati, 2009; Kao, 2009; Dahlin, Janeborg, & Runeson, 2007; Lewig, Xanthopoulou, Bakker, Dollard & Metzer; 2007; Argentero, Bonfiglio & Pasero, 2006; Crook, Weir, Willms & Egdorf, 2006; among others). The burnout of the volunteer has been investigated as a moderator variable for the duration of the volunteer work (Campbell, Campbell, Krier, Kuehlthau, Hilmes & Stromberger, 2009; Yiu, 2001), as influenced by the perception of the climate Group (Liao Chuang, 2004), as a moderate recognition variable, socio-emotional support and training/socialization received (Haski-Leventhal & Bargal, 2008; Held & Brann, 2007; Kiev, 2005; Lafer, 1991; among others). According to Nesbitt and Ross (1996) the burnout of the volunteer should be differentially treated with respect to the burnout of employees, being that the volunteer: (a) choose their job, (b) has control over the time that invests in their work, (c) has intrinsic motivation to do their job and (d) may leave his job if you do not feel committed without great cost.

The term *engagement* relates to involvement, commitment, dedication, attachment to work, it is understood motivationally and positively putting emphasis in the vigor dimensions, dedication and absorption (Salanova, Gonzalez, Roma & Baker, 2002). In relation to the engagement of the volunteer worker (Cromer, 2010; Farmer & Piotrkowski, 2009; Bekkers, 2005), previous studies on volunteering and engagement in retired people and senior citizens have been found (Tang, 2009; Kaskie, Imhof, Cavanaugh & Culp, 2008; Martinson & Minkler, 2006) and some research on engagement in voluntary students (Henderson, Brown, Pancer & Ellis-Hale, 2007; Obradovic, 2007; Gagne, 2003; Krettenauer & Gudulas, 2003).

According to all the literature analyzed so far it is detected the lack of an investigation that systematizes the collaboration and contributions from research groups and identifying the authors and theme recurring in volunteer workers. Therefore, it presents a descriptive research and Bibliometrics which discusses the engagement and burnout in volunteer documents. The existing literature on the subject, size and growth of the publications and its temporary and distribution sources, the most relevant authors, their productivity, membership and collaboration, as well as the topics that are included in the found documents is known.

**Method**

**Design**

By its nature of design this study is descriptive. The technique used is Bibliometrics, used for the systematic study of the scientific literature found. This technique looks for the quantification of the bibliographic information liable to be analyzed and consists in the application of quantitative and computerized procedures with purpose to analyze the
size, growth and distribution of the scientific literature, as well as study the social structure of the groups that produce and consume Science (Meza, 1996).

**Sample**

The sample was comprised of 104 scientific papers about volunteerism, engagement and burnout through the portal of databases *EBSCO Host* collected between the months of March to May of 2011. It is a portal that collects more than 150 databases, bibliographic, of reference and full-text. 3 Criteria for the choice of this portal have been considered: (a) material accessibility, (b) economic accessibility and (c) the fact that it is of an interdisciplinary approach to the phenomenon of study. For the records search descriptors were considered volunteering, engagement and burnout.

**Procedure**

We used simple descriptives to present results on size, growth and distribution of documents, models of Lotka (1926) and Cole and Cole (1973) for the analysis of the social structure of authors and Bradford’s (1934) model for the analysis of the sources that come from documents.

According to Lotka (1926) the number of authors who publish n documents \( (An) \) is directly proportional to the number of authors of a single document and inversely proportional to \( n \) raised to the square, where: \( An = A1/n^2 \), \( An \) is the number of authors with \( n \) signatures, \( A1 \) is the number of authors with a firm, \( n^2 \) is the number of signatures to the square. According to the author a very small number of more productive authors would produce a lot of documents, while another larger group of less productive authors publish very little.

Cole and Cole (1973) established productivity levels according to a quantitative criterium postulating a priori different groups of authors according to their productivity: the large producers (whose productivity is equal to or greater than 10 documents), the moderate producers (with 5 to 9 documents each), the small producers or applicants (with 2-4 records) and the authors who have signed a single document also known as deserters or passers-by (Crane, 1969).

Bradford (1934) fixed groups of productivity according to exponential growth. According to the author, it is possible to distinguish a core of the most productive sources and multiple cores or areas that include the same number of documents that the central core. This model allows you to locate the order of sources by their productivity, as well as indicate the percentage of each source in relation to the total documents.

The 104 found records were compiled with the FileMaker Pro 4.0 program in a personal file format. Once the personal file, it was built the Bibliometric analysis of the data started.

**Results**

According to Meza (1996) the presentation of the results will be organized in the following manner: (a) size, growth and distribution (temporary and bases /sources) of published documents, and (b) social structure that produced these documents (productivity, provenance and collaboration of the authors). Finally, (c) will present the results of the analysis of content (Flick, 2004) applied to documents considering their descriptors, which are grouped into categories.

**Size, growth, and temporal distribution of documents**

The found documents, which are distributed between the years 1983 and 2010 are 104. 6 Decades settled more than 47% of the scanned documents are located in the five-years 2006-2010, being the year 2009 which accumulates the most published documents on the subject. It should be noted that the documents search was conducted at the end of October of the year 2010 so in the last two months of the 2010 publications it could have increased surpassing the previous year.

**Distribution of documents (for databases and sources)**

Two data bases more productive in the subject matter were found in the *EBSCO Host* portal: these bases are PsycINFO and CINAHL, together they collect more than 84% of the published documents. Other bases that have smaller documents are: ERIC, PsycARTICLES, and with only a document each, Film & Television Literature Index, Library, Information Science & Technology Abstracts and Teacher Reference Center.
PsycINFO is the database of the APA (American Psychological Association) which groups scientific psychology communications, social sciences, Sciences of the behavior. It is the more remote psychology database since it includes publications since 1887 that form part of more than 1,400 journals, books, book chapters, reports, dissertations, among others. The database CINAHL (Cumulative Index Nursing and Allied Health Literature) offers nursing documents from 1982 until today, indicating systematically more of 300 publications. ERIC (Educational Resources Information Center) database collects documents about education, collects the printed sources Resources in Education (RIE) and the Current Index to Journal in Education (CIJE) covers information from 1966 to the present, contains bibliographic references and abstracts of articles from journals, books, conferences, theses and other documents. Finally, PsycARTICLES is a database with full-text articles specialized on issues of general psychology, contains more than 45,000 articles published in specialized journals, such as the American Psychological Association (APA) APA Educational Publishing Foundation, the Canadian Psychological Association, and Hogrefe & Huber, offers information from 1985 to the present day.

70 different sources were found which are distributed in the following manner: 3 most productive sources (with 5-11 published documents) accumulate 21.15% of the documents, 10 less productive sources (with 2-4 published documents) accumulate 23.08% of the documents and,
finally, 58 different sources accumulate only a document each representing 55.77% of the total documents.

It is not possible to apply the model of Bradford (1934) since the difference between documents published between the more productive and less productive sources is not comparable.

More than 70% of the documents are articles in journals with peer review or scientific evaluation Committee. More than 11% are books published.

Social structure (productivity, provenance and collaboration of the authors)

194 Different authors were found of which 13 accumulated 28 documents and, on the other hand, 181 authors have only posted once on the issue. There is little continuity in the subject of study.

Applying the model of Cole and Cole (1973) and Crane (1969) it’s observed that over 93% of analyzed perpetrators are passers-by, moderate producers haven’t been found or large producers and we only found 13 small producers.

Data from table 3 shows a distribution that includes 181 authors with 1 single document published. The distribution does not follow the pattern defined by the Lotka (1926) model since the expected data (third column of table 4) does not match the found data (second column of the same table): for 181 authors who have published a single document it would be expected more than 45 authors with 2 papers and 20 authors with 3 documents.

Table 1
Signatures by author

<table>
<thead>
<tr>
<th>Firmas por Au</th>
<th>F</th>
<th>%</th>
<th>% Accum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Signature</td>
<td>181</td>
<td>93.30</td>
<td>93.30</td>
</tr>
<tr>
<td>2 Signature</td>
<td>11</td>
<td>5.67</td>
<td>98.97</td>
</tr>
<tr>
<td>3 Signature</td>
<td>2</td>
<td>1.03</td>
<td>100</td>
</tr>
<tr>
<td>Author’s Total</td>
<td>194</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 2
Model of Cole and Cole (1973) for the analysis of the productivity of authors

<table>
<thead>
<tr>
<th>Autores</th>
<th>F</th>
<th>%</th>
<th>% Accum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passers-by</td>
<td>181</td>
<td>93.3</td>
<td>93.30</td>
</tr>
<tr>
<td>Small Producers</td>
<td>13</td>
<td>6.70</td>
<td>100</td>
</tr>
<tr>
<td>Moderate Producers</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Large Producers</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3. Distribution of documents by sources
Table 3
Lotka model (1926) for the analysis of the productivity of authors

<table>
<thead>
<tr>
<th>Registry/Author (n)</th>
<th>F (au)</th>
<th>An = A1 / n^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>181 (A1)</td>
<td>181</td>
</tr>
<tr>
<td>2</td>
<td>11 (A2)</td>
<td>45.25</td>
</tr>
<tr>
<td>3</td>
<td>2 (A3)</td>
<td>20.11</td>
</tr>
<tr>
<td>Author’s Total</td>
<td>194</td>
<td></td>
</tr>
</tbody>
</table>

Of the 194 authors found, almost 44% does not specify the institution of origin. The institutions with one higher recurrence are: Washington State University, University of Maryland, University of Trieste, University of Iowa and University of Minnesota.

Regarding the countries of origin, over 35% of authors who specify their origin are from the United States, other countries that are repeated in more than 5 cases are: Netherlands, Canada and United Kingdom.

Table 4 shows that almost 45% of the papers found were written by only one author, signal of the reduced collaboration of the analyzed authors.

Table 4
Authors by document

<table>
<thead>
<tr>
<th>Au by Doc</th>
<th>F</th>
<th>%</th>
<th>% Accum</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Authors</td>
<td>1</td>
<td>0.96</td>
<td>0.96</td>
</tr>
<tr>
<td>5 Authors</td>
<td>2</td>
<td>1.92</td>
<td>2.88</td>
</tr>
<tr>
<td>4 Authors</td>
<td>13</td>
<td>12.50</td>
<td>15.38</td>
</tr>
<tr>
<td>3 Authors</td>
<td>12</td>
<td>11.54</td>
<td>26.92</td>
</tr>
<tr>
<td>2 Authors</td>
<td>30</td>
<td>28.85</td>
<td>55.77</td>
</tr>
<tr>
<td>1 Authors</td>
<td>46</td>
<td>44.23</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

The authors found are distributed for its collaboration in groups of 6 to 2 authors. More productive authors are: Bakker and Ross, both lead the two invisible colleges found as shown in the figures below. It’s two groupings in which all authors have published collaboratively reduced number of documents (1, 2 or 3) without presenting individual publications.

Note. The first number in parentheses indicates the documents published privately by the author; the second number indicates the documents published in collaboration with other authors.

Figure 4. Bakker Invisible College
Content of the documents

The fields considered for this analysis of content were Descriptors, Major Subjects, Minor Subjects, Subjects Terms and Subjects being that each base appoints these fields in a different way. 451 different descriptors were found with a total occurrence of 979, again claiming the thematic dispersion which is located in the analyzed literature.

The most common descriptors are related to stress, volunteering, psychosocial factors, community engagement, political participation, prevention, control and motivation.

<table>
<thead>
<tr>
<th>Descriptors (DE)</th>
<th>F</th>
<th>%</th>
<th>% Accum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteers</td>
<td>78</td>
<td>7.97</td>
<td>7.97</td>
</tr>
<tr>
<td>Burnout</td>
<td>33</td>
<td>3.37</td>
<td>11.34</td>
</tr>
<tr>
<td>Occupational Stress</td>
<td>31</td>
<td>3.17</td>
<td>14.50</td>
</tr>
<tr>
<td>Psychosocial factors</td>
<td>26</td>
<td>2.66</td>
<td>17.16</td>
</tr>
<tr>
<td>Volunteer Workers</td>
<td>19</td>
<td>1.94</td>
<td>19.10</td>
</tr>
<tr>
<td>Community Involvement</td>
<td>17</td>
<td>1.74</td>
<td>20.84</td>
</tr>
<tr>
<td>Prevention and Control</td>
<td>16</td>
<td>1.63</td>
<td>22.47</td>
</tr>
<tr>
<td>Motivation</td>
<td>12</td>
<td>1.23</td>
<td>23.70</td>
</tr>
<tr>
<td>Human</td>
<td>10</td>
<td>1.02</td>
<td>24.72</td>
</tr>
<tr>
<td>Political Participation</td>
<td>10</td>
<td>1.02</td>
<td>25.74</td>
</tr>
<tr>
<td>Other DE with F&lt;10</td>
<td>727</td>
<td>74.26</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>979</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

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451 Descriptors are grouped into categories, the most common categories are: skills, socio-demographic variables and health-disease process, together they build up almost 60% of the analyzed descriptors. The first category comprises descriptors related to attitudes, knowledge, skills, motivation and behavior of volunteers. The category socio-demographic variables include descriptors related to age, gender, religion, ethnicity, culture, socio-economic family status and occupational/professional sector. Finally the category health-disease process included descriptors associated with various symptomatologies and diseases as well as dysfunctional situations at work, here are a few examples: HIV, panic attacks, stress, burnout, frustration, drug abuse, alcoholism, fatigue, conflict of role, suffering, work overload, etc.

In second instance there are the categories Method-investigation, socio-political organizacional context and social and health services, together they build up more than 20% of the analyzed descriptors. Method-investigation included descriptors related to the statistical analysis of research results and the type of research-related descriptors; the category socio-organizational context included descriptors related to social groups, community groups, businesses, non-profit organizations, state organizations, market of work, employment, unemployment, citizenship, political participation, and volunteering. The social and health services category basically grouped descriptors related to hospital care services (promotion and prevention) health, community services, social programs and education services.

Conclusions

In this descriptive Bibliometric research a total of 104 documents were analyzed by scientists on engagement and burnout in workers using the EBSCO Host database portal. Publications from the year 1983 were found. It is a field of study which increases their productivity especially in the last 5 years, being the year 2009 which accumulates many published documents. These results highlight a recent interest by researchers in this specific topic.

Regarding the consulted databases, only 2 databases are more relevant in the analyzed subject (PsycINFO and CINAHL) together they accumulated more than 80% of the 104 analyzed documents, first database is of the psychology discipline and the second is nursing. It was not possible to apply the model of Bradford (1934) to the analysis of the sources since the distribution between more and less productive sources is not comparable; most of the sources have only published a single document on the subject.

70% publications found are papers in peer-reviewed journals.

With respect to the analysis of productivity of the 194 authors there is great dispersion and low continuity of authors, applying the model of Cole and Cole (1973) and Crane (1969) almost all of the authors analyzed are passers-by because they published a single document in the theme. Lotka’s (1926) model is not fulfilled in the analyzed authors group. Regarding the collaboration between authors two invisible colleges were found with 6 and 7 authors respectively, signal of the reduced collaboration of the analyzed authors. These schools are led by the authors Bakker and Ross.

The membership institutions of the analyzed authors are American universities above all. You might wonder what happens in other countries with regard to work-related stress and engagement of volunteers.

The analysis of the thematic content of the analyzed documents exposes more than 450 different descriptors,
indicator of a great dispersion around the subject of study. The most common descriptors relate to stress, volunteering, psychosocial, community engagement, political participation, prevention, control and motivation factors.

**Limitations and questions for future research**

You can identify as a limit of this research the sample bias already since: (a) the strategy of data search conditioned the results obtained, in this case the descriptors used were **volunteering, engagement** and **burnout** in the data base EBSCO Host portal and (b) the likelihood that the article be published depends on the criteria of inclusion and indexing of each database (**PsycINFO, CINAHL, ERIC, PsycARTICLES, Film & Television Literature Index, Library, Information Science & Technology Abstracts and Teacher Reference Center**). Despite these limitations it should be recognized that this study offers an interesting view of the characteristics of the scientific production on the subject showing great dispersion, low productivity, continuity and collaboration of authors, indicators of the lack of a structured and systematic thematic body.

**References**


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