

# **Bibliometric study of gerontology research field / Ayelet Ein-Ya Gafni**

## **Abstract**

Gerontology (from Greek *geron*- old man; *logy*- research field) is a research field that studies the social, psychological and biological aspects which are related to old age. In recent years this field has become more important, especially in the western world, because of increasing percentages of older population. Old age research is conceived as an interdisciplinary field which refers to physiological and psychological aspects of old age and also to the social, economic and political aspects of caring for the elderly population. Consequently there is an increase in research in this field. Bibliometrics is a sub--field of Information Science that studies quantitative aspects of scholarly information. This is a theoretical research field which has practical consequences on research assessment, library design, purchasing, planning relationship with other libraries on the net, constructing virtual libraries, etc. The purpose of this research is to examine the institutionalization of gerontology as a research field.

The research questions are: 1) What is the focus of the gerontology field? Is it on geriatrics or rather on social and behavioral sciences? 2) Does the focus of gerontology field change over the years? 3) On which information fields is the gerontology field based on?

The research population of this study is the main gerontology journals: the sample includes 30 main gerontology journals, 29 in English and one in Hebrew. The sample includes data for all publications in the sample journals which have been published in 2003, 2006, 2009.

For data collection, we used Web of Science (Thomson Reuters), and the Journal Citation Report (JCR) database. This research analyzed the references in the main gerontology journals. In order to analyze there was a need to create a list of

these journals. An initial list has been taken from JCR - Journal Citation Report, 2009. The search has been conducted by common subject (Subject Category) of journals in both databases: JCR Science Edition and JCR Social Sciences Edition. These are extensive databases, but sometimes there the coverage is not sufficient. Therefore a list has been presented as a questionnaire to Israeli gerontologists, who participated in the biennial conference of the Israeli Gerontology Society: "Getting Old at the 21<sup>st</sup> Century" Theory and Practice of Serving the Elder and His/ Her Family. This conference took place on February 16<sup>th</sup>-17<sup>th</sup> 2010 in Tel-Aviv. The participants were asked to mark the journals known to them from the list of journals, and they were also asked to add additional journals relevant to the field, but not on the list. That way a list of journals that would be included in the research has been created: 30 journals: 29 in English and one in Hebrew. All the participating journals have been coded by their name, the investigated year, the relevant database in JCR of which the data have been taken from (JCR Science Edition, JCR Social Sciences Edition or both of them). The bibliographic references appearing in the articles published by these journals were coded by the amount of references to a specific journal that the investigated journal in the investigated year referenced. The publication year of the item in the referenced journal, the Impact Factor of the referenced journal, journal's self-citing rate, and referenced journal's subject were recorded. Therefore this research is based on reference analysis. Because the Hebrew journal does not appear in the JCR, all its references which appeared at the volumes of the investigated years: 2003, 2006, 2009, were reviewed manually. The Hebrew journal's references were sorted and counted manually, while the subjects and the Impact Factors of the non-Hebrew references were determined using the JCR, the same as for the references in the other journals. Hebrew references of the Hebrew journal were reviewed manually one by one in order to determine their subject taking into account the way the journals presents their content through the journals' website or their printed edition. When the subject was not clear it has been classified as unknown.

One can learn from the findings that the gerontology field has not been consolidated as a closed discipline. Most of the references, according to these findings, belong to life sciences in general and to medicine in particular, when references to gerontology are only third according to the frequency. It can be

concluded that most authors of gerontology papers prefer to base their information sources on life sciences in general and in medicine in particular, and not on sources which are defined as gerontology.

Another interesting finding is related to the Hebrew journal, where unlike the distribution of the general references of the sample (including the Hebrew journal), the subject with the largest amount of references is gerontology. On one hand, one can assume that in Israel gerontology is a more closed discipline, but on the other hand it cannot be concluded because only a single journal in Hebrew was examined. Our basic assumption that social sciences and/or gerontology would be the most salient for gerontology research has been refuted. It can be clearly seen that today authors of gerontology articles focus on medicine and life sciences. Therefore, despite of the declarations and the social developments, which are directed to refer to gerontology field as a whole and to its social dimensions in particular, this research has shown that gerontology is a largely a sub-domain of medicine (geriatrics).

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