Introduction

The focus of this article lies in the presentation of the results of a systematic review and analysis of the existing literature on the public communication of science within the perspective of public health as set out in its post-graduate programmes, these being included, in their turn, in university institutions which, within a broader context, constitute cells dedicated to the production of knowledge, science and technology in knowledge societies.

The limitation of this study to the sphere of public health is due to its inclusion in doctoral research undertaken in the Post-graduate Programme in Public Health of the School of Public Health of the University of São Paulo, Brazil.

Method

This is a bibliographical study and one of documentary analysis. In the discussion of the results the principle of the analysis of the tests of tracking and the diagnostic test, used in epidemiological studies in the field of public health, has been employed. A bibliographical survey of the PubMed database, the most important database for the retrieval of literature in the biomedical field, chosen for its international outreach, was undertaken. Documentary analysis of the articles retrieved was also carried out to verify their correspondence to the original proposal of their being related to public communication within the context of post-graduate programs in public health.

The bibliographical survey was based on the Medical Subject Heading (MeSH) programme, which consists of a structured, controlled vocabulary, produced, maintained and made available online by the U.S. National Library of Medicine, employed as a resource for the indexing, cataloging and retrieval of information and documents and/or articles relating to the health field.

It was sought to identify the MeSH and DeCS terms associated with the theme of public communication and post-graduate programmes in public health. Once in possession of this structured vocabulary, the bibliographical research was undertaken, both by simple and advanced search in the PubMed databases. The documents retrieved during the advanced search were then submitted to documentary analysis.

In order to provide elements for the interpretation of the data obtained during the bibliographical survey the methodological principle of a tracking test and of a diagnostic examination, such as are used in epidemiological studies in public health, was adopted (Pereira, 2005, p.33).
Tracking tests were undertaken, the first with a view to retrieving, on the basis of the established databases, documents related to the theme of public communication. The first was done by simple search. In the second, undertaken by advanced search, each of the MeSH terms related to public communication was conjugated with the MeSH terms related to post-graduate programmes in public health. The documents retrieved in the second phase were submitted to a “diagnostic test”, i.e., in this case they were submitted to documentary analysis to determine which of them actually dealt with the subject in accordance with the previously established criterion.

A second bibliographical survey was undertaken with the data obtained from a control group with a view to determining possible false negatives, undetected in the group tracked.

The terms sensibility, specificity, positive predictive value and negative predictive value, inherent to a tracking test in epidemiological studies, were correlated with the results obtained by the bibliographical research into the databases.

Results

The MeSH terms which were associated with public communication and post-graduate programmes in public health are as follows: Diffusion of Innovation - DI, Mass Media - MM, Communications Media - CM, Information Science - IS, Access to Information - AI, Disclosure - D, Information Dissemination - ID, Health Communication - HC, Information Literacy - IL, Social Media - SM, Education Graduate – EG, Schools Public Health - SPH.

Table 1 presents an overall view of the number of documents retrieved whether by simple or advanced search (AS) using each of the MeSH/DeCS terms associated with public communication and the post-graduate programmes in public health. The number of articles resulting from the Documentary Analysis (DA), correlated with public communication in the post-graduate programs in public health, may also be seen.

<table>
<thead>
<tr>
<th>Data Base</th>
<th>Number of Articles Retrieved by MeSH/DeCS Term Simple Search</th>
<th>BA</th>
<th>AD</th>
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Discussion

The methodology of the tests of tracking and diagnosis (Bonita, Beaglehole, and Kjellström, 2010) was adopted for the analysis of the data collected. The bibliographical research, in accordance with the criterion of the search for articles related to public communication in post-graduate programmes in public health using the MeSH terms, constitutes the group or population tracked. The bibliographical research structured by randomised draw constituted
the control group. As only the PubMed database complied with the previously established criterion, the study of the tracked and the control groups was undertaken exclusively on the basis of this database. Only the basis of the control group, of 241 documents, was composed by proportion in relation to the tracked group.

A sample of the articles of the control group was undertaken, employing the “Random Integer Generator” resource, available on the site www.random.org, for submission to documentary analysis. As the indexing of the articles in the PubMed is highly dynamic and can change from one day to the next, the bibliographical search, both for the tracked group as also for the control group, was undertaken on one and the same day.

It was intended, with the control group, to identify articles which complied with the previously established criterion of dealing with public communication in post-graduate programmes of public health which had possibly not been identified in the tracking test.

When the documentary analysis had been undertaken, as also that of the diagnostic examination of the 241 articles belonging to the control group, no false negative article was identified. That is to say, no document which complied with the purpose of the study was found. This demonstrated that the search system used by the PubMed database is efficient and sensitive in its identification of the truly positive articles or cases.

On the basis of the application of the model of a standard tracking test (Menezes and Santos, 1999) and of formulas used in the tracking tests of the epidemiological studies (Pereira, 1995), it was concluded that in the bibliographical research, both with the tracked and the control group, the resource was more appropriate to measure the degree of sensitivity than their degree of specificity, seeing that the identification of the articles which in fact complied with the established criterion was of 100% and the degree of specificity of the test in detecting articles which did not comply with that criterion was of approximately 51%.

As the purpose of the study was the identification of articles related to public communication in post-graduate programmes of public health, the result of the degree of sensitivity of the same corresponded fully to the original proposal.

Conclusion

The theme of public communication in post-graduate programmes of public health does not thus yet seem to be the object of systematised studies, which points to the need further to develop the study of this theme. One important reason for working on the theme of public communication in post-graduate programs, particularly those of public health, relates to the presuppositions of the modern knowledge society (Bessa, Nery e Terci 2003, Wagner 2007).

Even though the results presented here are partial in the light of the consideration that they are included in the wider context of a doctoral research project, they close the circle of a study which is already complete. It is to be hoped that they may contribute to the discussion of the questions of public communication within the field of post-graduate programmes in public health, and by extension within the scope of post-graduate programmes in general, in the various areas of knowledge and also within the scope of universities in general, especially Brazilian ones.
References


