Press Releases of Science Journal Articles and Subsequent Newspaper Stories on the Same Topic

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Context.—Scientific journals issue press releases to disseminate scientific news about articles they publish.

Objective.—To assess whether press releases about journal articles were associated with publication of subsequent newspaper stories.

Design.—Retrospective content analysis of newspaper stories, journal press releases, and journal tables of contents. From December 1, 1996, to February 28, 1997, press releases and tables of contents were collected from BMJ, Nature, Science, and The Lancet, along with newspaper stories on scientific research published in The New York Times (United States), Le Figaro and Le Monde (France), El Pais and La Vanguardia (Spain), La Repubblica (Italy), and the International Herald Tribune.

Main Outcome Measurements.—Number of newspaper stories that contained reference to articles appearing in the 4 scientific journals, number of newspaper stories that referred to journal articles described in press releases, and the order in which journal articles were mentioned in press releases.

Results.—Of the 1060 newspaper stories analyzed, 142 referred to journal articles; of these, 119 (84%) referred to articles mentioned in press releases and 23 (16%) referred to journal articles not mentioned in press releases (comparison of proportions, \( P = .03 \)). Articles described first or second were referenced in more newspapers than articles described later in the press release \( (P = .01 \times \chi^2 \text{ analysis}) \).

Conclusions.—Journal articles described in press releases, in particular those described first or second in the press release, are associated with the subsequent publication of newspaper stories on the same topic.
Association Between Article Order and Newspaper Story Reference*

<table>
<thead>
<tr>
<th>Order of Articles in Press Releases</th>
<th>Newspaper Story References, No. of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>First or second (n = 98)</td>
<td>58</td>
</tr>
<tr>
<td>Third or fourth (n = 93)</td>
<td>80</td>
</tr>
<tr>
<td>Fifth or sixth (n = 65)</td>
<td>59</td>
</tr>
<tr>
<td>Seventh or lower (n = 137)</td>
<td>131</td>
</tr>
</tbody>
</table>

*P < .05 by χ² analysis.

releases and publication of subsequent newspaper stories on the same topic.

METHODS

All newspaper stories on scientific research appearing between December 1, 1996, and February 28, 1997, were collected from 7 major general newspapers from European countries and the United States: The New York Times (United States), Le Figaro and Le Monde (France), La Repubblica (Italy), El Pais and La Vanguardia (Spain), and the International Herald Tribune (a European edition published by The New York Times and The Washington Post). Simultaneously, tables of contents and press releases were gathered from 4 scientific journals: BMJ, Nature, Science, and The Lancet. These journals were selected because they have been described by journalists as being commonly consulted for scientific information.1,4

For data analysis, the following variables related to newspaper stories were collected: publication (did the story refer to a scientific publication?), sample (was the source scientific journal 1 of the 4 sample journals?), press release (did the newspaper story refer to a journal article included in a press release?), and source article (name of the journal that published the source article and date of journal publication). We considered only those newspaper stories that contained an explicit reference to the source (ie, the journal in which the article was published). The following press release variables were collected: number of press releases, article order (in what order did the source article appear in the press release?), and newspaper story references (how many newspaper stories mentioned a scientific journal article that appeared in a press release?).

RESULTS

Between December 1996 and February 1997, the 7 newspapers in this sample contained 1060 stories on scientific research. During this time, 393 journal source articles were included in press releases.

A statistical test was used to compare the proportion of newspaper stories that referred to journal articles that did vs did not appear in press releases. Of the 1060 newspaper stories collected, 142 referred to journal articles that appeared in 1 of the 4 journals during the sample period. Of these, 119 (84%) referred to articles that appeared in press releases and 23 (16%) referred to articles that did not appear in press releases (P = .03). Thus, journal articles that appeared in press releases were better represented in the general press.

A similar analysis performed for each newspaper also found significant differences, except for The New York Times (no significant difference) and La Repubblica (the number of newspaper stories that referred to journal articles was too small to yield any conclusion).

Was there an association between the order in which an item appeared in a press release and coverage of the topic in the general press? Of the 393 articles that appeared in press releases, 65 were mentioned at least once in the sample newspaper stories. The remaining 328 articles received no mention. We found an association between article order and newspaper story references. The higher priority a journal article was given in a press release, the more it was referred to in the general press (Table).

COMMENT

This study demonstrates an association between appearance of a journal article in the journal’s press release and subsequent publication of a story on the same topic in a national newspaper. The order in which a journal article appeared in the press release was also associated with the number of newspaper stories published on the same topic.

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References