

There is a strong correlation between impact factors and physicians ratings of journal quality

Bottom Line: For the 9 medical journals selected, a strong correlation was found between impact factor and physicians ratings of journal quality, which was significant ($p < 0.001$).

Focused Question:

Are impact factors useful as a measure of the quality of medical journals?

Citation:

Saha S, Saint S, Christakis D. *Impact factor: a valid measure of journal quality?* Journal of the Medical Library Association 2003, 9(1) pp42-46 (Full text available at <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=141186>)

Search terms:

impact factors; evaluation; quality

Summary of the aim and methods of the study

- The authors sought to examine whether impact factor is a valid measure of journal quality as rated by clinical practitioners and researchers.
- The sample was 416 physicians specialising in internal medicine in USA - 208 randomly selected (not clear how) practitioners from the American Medical Association's (AMA) master list, and 208 researchers from the alumni directory, randomly selected using a random number generator
- These participants were all sent a questionnaire - no information was given about this data collection instrument, except that they asked respondents to rate the overall quality of nine medical journals, and they asked respondents to report whether they subscribed to or read each of the 9 journals

Main Results

- Response rate was good - 66% overall, 58% from practitioner group and 74% from research group. 135 people did not respond and no explanation or breakdown of group was given.
- There were no significant differences between respondents and non-respondents in terms of age, graduation year or subspecialty training
- There was a strong correlation between impact factor and physicians ratings of journal quality, which was significant $p < 0.001$.
- Physicians ratings of journal quality correlated more closely with impact factor than with subscription rates or with readership rates.

Comments:

- Good rationale and justification for conducting the study, as there is clearly a need for information on the value of impact factors.
- Good response rate
- No sample size calculation – so not sure how they came up with the figure of 416 physicians
- Not given much information about the total population of physicians, so difficult to know if the selected population for this survey was significantly different from other physicians – probably not different enough to make study unusable
- Not clear why a random number generator was used for the researchers but not for the physicians.
- No information given about the questionnaire - a copy of the questionnaire would be needed in order to replicate study
- A limitation of the study was discussed by the authors - not all physicians had read the journals they were rating so opinions might have been based on perceptions. Physicians may rate a journal as good because it is prestigious like JAMA, or low quality because they haven't heard of it before.

Appraised by: Oxford Health Librarians journal club, January 2005