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Knowledge and Attitude of Health Researchers from India towards ‘Paying to Publish’ and Open Access Journals

Knowledge and attitude of 2509 Indian health researchers towards open access publishing and authors paying to publish model was evaluated. 55.6% researchers had knowledge about open access and 76% about Author pay model. 72% of Researchers were not interested to pay publication charges. Lack of research grants were the primary reason for inability to pay publication charges.

Keywords: *Author fees, Closed journals, Open access journal, Publication fees.*

One reason for Restricted access to dissemination of knowledge by scientific journals is that they are largely based on subscription charges to readers. To resolve this crisis in scientific communication, Open access publication (OAP) was developed, which provides lawful, free access to journal content and is funded by means other than readers' subscription [1]. OAP articles have been produced by “Paying to publish” model, which means authors has to pay a so-called publication fees [2]. Since there is lack of pertinent studies in India, we conducted a cross-sectional study over a period of three months from March to May, 2014 to explore knowledge and attitude of health researchers from India towards OAP and paying to publish model.

A questionnaire (*Web Table I*) consisting of 5 questions regarding knowledge and 12 in relation to attitude was developed. A pilot study on 50 people selected randomly from a single academic institution was conducted to determine reliability of the questionnaire. The questionnaire was re-evaluated and improvements made. Another pilot study on 30 different randomly selected people from another academic institution was done to estimate the reliability of questionnaire (Cronbach's alpha = 0.72). 4036 Health researchers were selected in this study using convenience sampling. A 76% positive response rate (3067) was obtained from the sample. 558 (18.2%)

individuals, who did not have any publication in open or closed journals were excluded from the study. Finally, 2509 respondent questionnaires were evaluated.

Results showed that only 1395 (55.6%) researchers have knowledge about open access and 1907 (76%) about Author pay model, which is in agreement to a previous study [3], though a lower percentage has been observed in Cuban [1].

In the present study, large numbers of researchers (72.28%) are not interested to submit their work to journals that charge to author, and majority (72.28%) have not ever paid for their publication. Author charges is the most threatening factor, as this policy may ultimately end up discouraging publication in these journals. One way to avoid further charges to unsupported authors is the proposal to waive publication charges to those residing in less-developed countries [8]. Present study revealed that in India only 3% of Indian researchers are willing to pay more than \$500; whereas, in English-speaking countries, 20% are ready to pay [9]. Present study demonstrated that the relevant terms: eprint (digital version of a research document that is accessible online), Self-archiving (depositing a digital document in a publicly accessible website), and Institutional repositories (online archive for collecting, preserving, and disseminating digital copies of the intellectual output of an institution) were familiar to only smaller number of the Indian researchers (28%, 22% and 14%, respectively). Nonetheless, little understanding of these terms has been observed in other countries as well [2,3]. German Research Society found that only 26% of biomedical researchers have knowledge of repositories or preprint archives [4].

A possible reason may be that the Open Access Movement emerged in developed economics, such as the USA and United Kingdom, as a result, it is primarily authors in these countries who are familiar with these terms [1]. Nevertheless, biomedical journals in India have not been promoted as open access journals till now as Journal sections do not show explicit indication that guide authors that they are open access publications.

Only 37.6% researchers had published their work in OAJ, which is high as compared to studies conducted by Germany Research society [4] (10%), Rowlands, *et al.* [3]

(11%) and Hess, *et al.* [5] in Germany (23%). Majority of researchers (55.2%) in the present study were reluctant to publish their work in OAJ because they (60.2%) felt that these journals have limited impact and prestige.

In terms of impact, open access still lags behind non-OA journals. Although the median SNIP value (Source Normalized Impact per Paper) has risen from 0.34 in 1999 to 0.47 in 2011 for OA journals, but they have still not caught up to Non-OA journals. On the brighter side, there is some evidence that this gap may be closing. In four major countries (US, UK, Netherlands, and Germany), considered as world's largest academic publishers, there is an overall trend of increasing impact for both open- and closed- journals, with a huge gain for open access journals in particular. Journals published in Brazil, Belgium, India and Japan favor OA, with median SNIP scores higher than that of closed access journals [6].

According to the study done by Sahu, *et al.* [7], India is placed in the list of OAJ, well ahead of countries such as Netherland, China, Germany and Australia. Among low the income countries, India ranks second to Brazil. Almost 50% of journals from India are open access. 66% of open access journals do not charge author fees and whereas 28% have a fee and the rest are conditional (or data on fees are missing) [6].

Research and innovation are the foundation for sustained growth. Current study revealed that majority of Indian health researchers (80.2%) do not receive any research grant. Lack of funds and inappropriate facilities for research work, were considered as two prime reasons for India lacking behind in the scientific world [10]. Authors, publishers and government agencies must consider geographical and cultural differences so that new decisions do not increase already existing inequalities between countries. We conclude that there is no ethical problem with paying a publisher for the work it does, as soon as the editors are independent from the money flow.

Various appropriate and timely actions should be taken to explore knowledge and attitude about the Open Access. The advantages of open access movement have to be promoted to further propagate their scientific papers and knowledge, and building institutional repositories. This would definitely help to change the passive and conservative attitudes of research scholars.

HARKANWAL PREET SINGH

*Department of Oral Pathology and Microbiology,
Dasmesh Institute of Research and Dental Sciences,
Talwandi Road, Faridkot, Punjab, India.
hkps0320@gmail.com*

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