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Indian and Chinese papers published on medicinal plants

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ABSTRACT

The China is performing better than India in research. The status of research on medicinal plants in both the countries was studied using Science Citation Index (SCI) database. In this communication, we present a bibliometric analysis of Indian and Chinese research papers published on medicinal plants. The scientometics revealed that in spite of the poor performance in overall science-research, India is doing better in medicinal plant research.

The science and technology output share verse GDP share indicates that EU and USA are on decline, whereas China and India are on rise (Prathap, 2012). According to Thomson Reuters India's contribution in global research is 3.5% and China's share is about 18.5 % (http://www.dst.gov.in/whats_new/whats_new12/report.pdf; http://www.iira.in/IntheNews_ PopUp.aspx?id=109) but same database (Science Citation Index) confirmed that Indian Scientists are performing better than Chinese in medicinal plant research (Table 1; Fig 1), whereas database of Pub Med indicates Chinese researchers have published twice than Indians (Dutt *et al.*, 2009). It may be due to inclusion of relatively more number of regional journals in Pub Med database. Bradford's law suggests SCI (Science Citation Index) is better data base to evaluate the research output and it has wide acceptability (Hoeffel, 2007; Glanzel and Moed, 2002). Furthermore, SCI has some advantages over Pub Med like, regular updates, addresses of all the authors, number of citations received (Dutt *et al.*, 2009). The use of SCI for research evaluation is also confirmed by other studies (Hoeffel, 2007; Glanzel and Moed, 2002).

Since 1945 about 91, 535 papers have been published on medicinal plants from all over the globe in journals included in SCI database. As in Table 1, India has published about 2.8 times more papers than China, similar finding was observed by Dutt *et al.* (2009) and Gupta *et al.* (2009). In Fig 1, we have taken data from 1981 onwards because the first Chinese paper on medicinal plant was published in 1981, whereas first Indian paper was appeared in 1973.

A high peak is noticed in average citation graph for China, the reason is China has published only one paper in the year 1985, the paper was co-authored with Switzerland and USA, which has 337 citations! The h-index of both the counties is almost equal but p-index of India is 38.67% higher. As in fig 1, substantial increase in publication is observed after 2004 for both the countries but trajectory is more sharply increased for India.

Table 1: Research papers of India and China on medicinal plants in SCI database (since 1945).

	India	China
No. of Publications	5,201	1,872
Publication share (% of world)	5.68	2.04
No. of Citations (without self citations)	23039	18577
Average citations	8.05	10.66
h-index	57	56
p-index	365.56	141.36

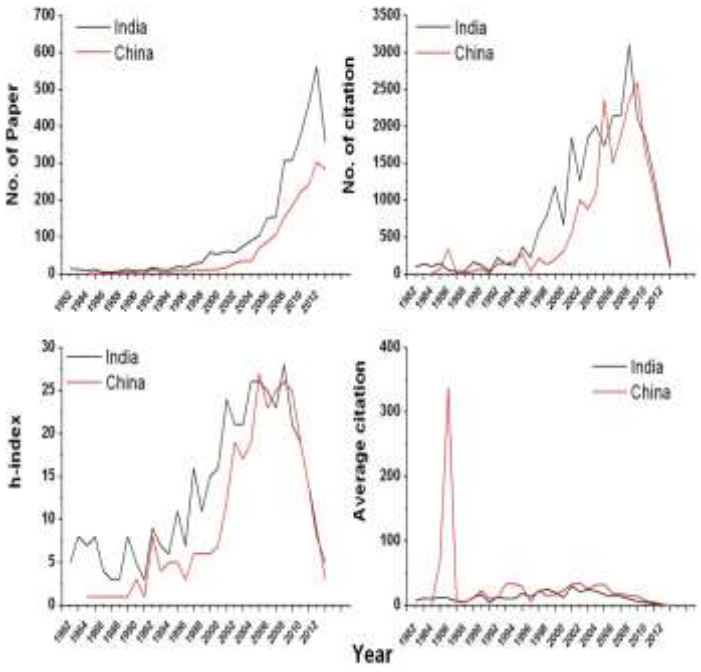

Fig 1: Indian and Chinese papers on medicinal plants in SCI database (1981-2012)

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