**Global Research Partnerships in Advancing Public Health: A descriptive case study on India**

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**Introduction:**

Collaborative research is integral in medicine. However, rising nationalism may result in a state of protectionism where international collaboration is curtailed especially by imposing restrictions on funding. Such a move could adversely impact progress in achieving sustainable development goals. In this study, I investigated the characteristics of research partnerships in India.

**Methods:**

I conducted a cross-sectional analysis of all original research articles published in the top five high impact clinical research journals over a period of ten years prior to February 18th 2018. I restricted the search on PubMed database to articles containing the word ‘India’ in any part of the publication, and limited the search to those which provide an abstract. Of the 258 articles that were retrieved from this search, I found 59 manuscripts which describe research conducted exclusively in India.

**Results:**

Of the 59 research studies, 31 were published in *The Lancet*, 13 in *British Medical Journal*, 11 in *New England Journal of Medicine*, 3 in *Journal of American Medical Association* and 1 in *Annals of Internal Medicine*. Only 46% of the studies had an Indian-affiliated researcher listed as a first author, and 29% as a corresponding author. The first and the last authors of the study were both from outside India in 63% of the studies. The Government of India provided funding support to 15% of the studies, whereas a foreign government provided support to 51% of the studies. 41% of studies were supported entirely by a foreign government. 54% of studies were funded from a non-governmental source as well, not including the United Nations, World Health Organization or the World Bank. Bill & Melinda Gates Foundation and Wellcome Trust provided research funding in 24% and 12% of the studies respectively. Only 6 studies were conducted with pharmaceutical support, of which only 3 were funded exclusively by the industry. Of the 59 studies, 36 were interventional and 23 were observational. The study design and topic of research are listed in Table 1. All of the research topics were relevant to the Indian context. Maternal and child health were the field of study in 36% of the publications. Infections, chronic diseases, and cause of death studies formed the other major fields.

**Discussion:**

Majority of the high impact clinical medicine and public health research on India has partnerships that span countries and funders. Two-thirds of the projects were conceived, designed, and conducted by an individual who has an affiliation to a foreign nation. Non-governmental and foreign government support has been crucial to these studies. More than four-fifths of the funding was not from the government of India. One-fourth of the funding support has been from the Bill & Melinda Gates Foundation. The government of India has imposed strict restrictions on research funding from the organization, among several other similar non-governmental organizations.1

Research in developing regions should be conducted based on strong ethical benchmarks. Collaborative partnerships, social value, scientific validity, and context of the research have to favor the region where research is conducted.2 If the government is curtailing research collaborations between nations and organizations, it risks harming the health of its citizens. While funding from local organizations, civil society, and government will help reduce the risk for exploitation, curtailing research funding from external sources may have a human cost. The solution to this problem rests with the government which should ensure greater investment in research. Not doing so will be detrimental to the well-being of its people.

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**Table 1: Research in India in field of medicine and public health published in five high impact factor clinical research journals over ten years (2008-2018)**

|  |  |  |
| --- | --- | --- |
| **Characteristics of research** | **N** | **%** |
| Type of interventional study (N=36) |  |  |
| Drug | 7 | 19.4 |
| Vaccine | 7 | 19.4 |
| Vitamin | 3 | 8.3 |
| Surgery | 2 | 5.6 |
| Health behavioral | 7 | 19.4 |
| Health workers | 8 | 22.2 |
| Other (CPAP, drug eluting stents) | 2 | 5.6 |
| Type of observational study (N=23) |  |  |
| Cross-sectional | 15 | 65.2 |
| Modeling study | 4 | 17.4 |
| Registry/census data | 2 | 8.7 |
| Cohort | 2 | 8.6 |
| Field of study (N=59) |  |  |
| Maternal/Pregnancy | 5 | 8.5 |
| Child health | 16 | 27.1 |
| Public health | 3 | 5.1 |
| Mental health | 3 | 5.1 |
| Mortality study | 9 | 15.3 |
| Cancer | 2 | 3.4 |
| Infections | 10 | 16.9 |
| Nutritional | 1 | 1.7 |
| Chronic diseases | 10 | 16.9 |