

## The best ROI may be found in high-quality research.

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**Abstract :** Both the economy and healthcare have benefited greatly from medical research. Economically, medical research has made significant contributions to society, particularly in the areas of direct cost savings in healthcare and maintaining a healthy workforce. A wholesome community, successful drug research and development, etc [1]. Quality research has the potential to significantly lessen the prevalence of illness and its related costs. In the United States, for instance, the overall death rate has dropped from 842 per 100,000 in 1950 to 479 in 1997. The percentage of people who survive cancer after five years has increased from 35% in the 1950s to 62% in the 1990s. Research has made a significant contribution to these successes [2]. Economic rewards for medical research are substantial, in addition to the obvious health benefits. The \$31.8 million spent on creating the hepatitis B vaccine saved \$346.6 million to \$462.1/year in healthcare costs by reducing related deaths. Research may have an effect not just through leading to the creation of new goods like the hepatitis B vaccine, but also by elucidating the causes of diseases and suggesting new ways to cure them. Savings in treatment costs of \$402–804 million per year were realized by a study that compared medicinal therapy with surgery in the population in whom coronary artery bypass grafting may possibly be avoided, whereas the research cost was only around \$36.5 million [2].

### INTRODUCTION

All the above was possible because of high quality

support, funds, appropriate training, career opportunities, collaborations, informed health policies, improvement in public health awareness and improvement in public behaviour<sup>[3]</sup>.

Health research training is an important component of healthcare research infrastructure as the rapid progress in the world is expected to transform biomedical research. Physician-investigators or physician-scientists have a major role in translating the basic research to therapies useful in patients. However, the number of physician-scientists is decreasing all over the world

of students participated to a minimal or unsatisfactory levels with respect to research report writing and presentation. The learning about research was a first time experience for close to 91% of participants. More than half of the

<sup>[4]</sup>.

Unfortunately, the ground reality of research training and attitude is very poor in India. Several Indian studies stand in evidence of poor attitude and training in India. In a study by *Rani et al.*<sup>[5]</sup> (done at a medical college in South India), although about 68% of undergraduate medical students were interested in research only about 9% actively participated. Lack of knowledge of research methodology was the most important reason for non-participation followed by time constraints, lack of guidance and lack of financial support<sup>[5]</sup>.

participants reported that their priority during the period of internship was preparing for post-graduate entrance test rather than learning research

<sup>[6]</sup>.

Studies on attitude of Ayurvedic practitioners towards research are lacking. However, it can't be denied that there has been a significant amount of research over past 5 decades in the field of Ayurveda. Government has created institutes like Central Drug Research Institute, Regional Research Laboratory, Jorhat (RRLJ), Central Council for Research in Ayurveda and Siddha, and the Department of Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH), etc. to promote research in alternate medicine. Most of the research has focused on development of new medications. In future, there is a need for research in the field of basic principles of Ayurveda<sup>[7]</sup>.

In spite of all the efforts to promote research in alternate medicine, poor research practice is also a reality. The areas of research design and the study population is usually small. In addition, improper statistical methods and lack of consistency in treatment and product are also commonly observed. Use of multiple or combination of treatment options (owing to whole body treatment including body and mind with drugs, lifestyle changes and non-drug therapies) has made arriving at practical conclusions of research outcomes a challenging task. Lack of standardized physiological and pathological entities in traditional medicine makes high quality research and extrapolation of results to bigger populations' difficult.<sup>[8]</sup>

According to Nahin and Straus, the quality of research in traditional and complementary medicine can be improved through strong commitment by researchers and rigorous designing of studies<sup>[8]</sup>.

In conclusion, changing the attitude towards research training, better designing of research, creating research careers and including research in early part of curriculum can probably improve research scenario in Ayurveda. Improved research scenario in Ayurveda can benefit Ayurveda as well as people equally. Inclusion of research methodology in BAMS curriculum by Central Council of Indian Medicine (CCIM) is a welcome move towards creation of quality researchers and research environment.

#### References:

1. Health Economics Research Group, Office of Health Economics, RAND Europe. Medical Research. Medical Research: What's it worth? Estimating the

economic benefits from medical research in the UK. [Internet], 2008, [cited on 08/11/2015]. Available on <https://www.acmedsci.ac.uk/viewFile/51b9c5e8a8c41.pdf>.

2. Office of the Chairman, Mack C. United States Senate. The Benefits of Medical Research and the Role of the NIH. [Internet], 2000, [cited on 08/11/2015]. Available on [http://www.faseb.org/portals/2/pdfs/op\\_a/2008/nih\\_research\\_benefits.pdf](http://www.faseb.org/portals/2/pdfs/op_a/2008/nih_research_benefits.pdf).
3. Sadana R, D'Souza C, Hyder AA, Chowdhury AM. Importance of health research in South Asia. *BMJ*. 2004;328(7443):826–30.
4. AlGhamdi KM, Moussa NA, AlEssa DS, AlOthimeen N, Al-Saud AS. Perceptions, attitudes and practices toward research among senior medical students. *Saudi Pharmaceutical Journal*. 2014;22:113–117.
5. Rani RJ, Priya M. Knowledge, Attitude and Practice on Medical Research: The Perspective of Medical Students. *Biosciences Biotechnology Research Asia*. 2014;11(1):115–119.
6. Chaturvedi S, Aggarwal OP. Training interns in population-based research: learners' feedback from 13 consecutive batches from a medical school in India. *Med Educ*. 2001;35(6):pp.585–589.
7. Singh RM. Exploring issues in the development of Ayurvedic research methodology. *J Ayurveda Integr Med*. 2010;1(2):91–95.
8. Nahin RL, Straus SE. Research into complementary and alternative medicine: problems and potential. *BMJ*. 2001;322:161–4.