

Search To Research

Search -- Try to find something by looking or otherwise seeking carefully and thoroughly.

Research -- The systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions.

Whatever may be the types of research works and studies, one thing that is important is that they all meet on the common ground of scientific method employed by them. One expects scientific research to be of good quality as stated. ^[1]

Good research is systematic: It means that research is structured with specified steps to be taken in a specified sequence in accordance with the well defined set of rules. Systematic characteristic of the research does not rule out creative thinking but it certainly does reject the use of guessing and intuition in arriving at conclusions.

Good research is logical: This implies that research is guided by the rules of logical reasoning and the logical process of induction and deduction are of great value in carrying out research. Induction is the process of reasoning from a part to the whole whereas deduction is the process of reasoning from some premise to a conclusion, which follows from that very premise. In fact, logical reasoning makes research more meaningful in the context of decision-making.

Good research is empirical: It implies that research is related basically to one or more aspects of a real situation and deals with concrete data that provides a basis for external validity to research results.

Good research is replicable: This characteristic allows research results to be verified by replicating the study and thereby building a sound basis for decisions.

Problems Encountered by Researchers in India

Researchers in India, particularly those engaged in empirical and clinical research, are facing several problems. Some of the important problems are as follows: -

The lack of a scientific training in the methodology of research is a great impediment for researchers in our country especially in training during medical courses. Many researchers take a leap in the dark without knowing research methods. Most of the work, which goes in the name of research, is not methodologically sound.

Research to many researchers and even to their guides, is mostly a scissor and paste job without any insight shed on the collated materials. The consequence is obvious, viz., the research results, quite often, do not reflect the reality or realities. Before undertaking research projects, researchers should be well equipped with all the methodological aspects. As such, efforts should be made to provide short duration intensive courses for meeting this requirement.

Cooperation among a diverse group of stakeholders- including research sponsors (industry, academia, government, nonprofit organizations, and patient advocates), clinical investigators, patients, payers, physicians, and regulators is necessary in conducting a clinical research today. In this regard there is an acute need for developing some mechanisms of a university- industry interaction

programmes so that academics can get ideas from practitioners on what needs to be researched and practitioners can apply the research done by the academics.

Research studies overlapping one another are undertaken quite often for want of adequate information. This results in duplication and fritters away resources. This problem can be solved by proper compilation and revision, at regular intervals, of a list of subjects on which and the places where the research is going on. There does not exist a code of conduct for researchers and inter-university and interdepartmental rivalries are also quite common. Hence, there is need for developing a code of conduct for researchers, which, if adhered sincerely, can win over this problem. Library management and functioning is not satisfactory at many places and much of the time and energy of researchers are spent in tracing out the books, journals, reports, etc., rather than in tracing out relevant material from them.

There is also the difficulty of timely availability of published data from various government and other agencies doing this job in our country. Researcher also faces the problem on account of the fact that the published data vary quite significantly because of differences in coverage by the concerning agencies. There may, at times, take place the problem of conceptualization and also problems relating to the process of data collection and related things. A factor not much appreciated is the role of editors of medical journals in the promotion of research, which gets reflected, in the quality of a medical journal. Quality of medical journals is an issue that must be addressed on war footing. A consolidated approach is needed. Formal training of editors and introduction of certificate courses in medical editing can go a long way in achieving the target.^[2] Medical universities like ours can play an active role in this regard.

Improving the overall capacity of the clinical research will depend on ensuring that there is an adequate infrastructure in place to support the investigators who conduct research, the patients with real diseases who volunteer to participate in experimental research, and the institutions that organize and carry out the trials.^[3]

“Knowing is not enough; we must apply.

Willing is not enough; we must do.”

—Goethe

References:

1. Danny N Bellenger and Barnett A Greenberg, “Marketing Research—A Management Information Approach”, p. 107–108.
2. Wong VS, Callaham ML. Medical journal editors lacked familiarity with scientific publication issues despite training and regular exposure. *J Clin Epidemiol*. 2012;65:247-52.
3. Transforming Clinical Research in the United States: Challenges and Opportunities: Workshop Summary. Washington DC: The National Academies Press. IOM (Institute of Medicine). 2010.

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