

Original article:

Role of Research methodology workshop in improving research skills by pre test- post test analysis

Mr. Santosh Bidwe¹, Dr. Surekha T. Nemade², Mr. Chandrakant G. Kamble³, Mr. Jagdish D. Powar⁴,

1. Assistant Professor, Dept. of Biochemistry , SMBT Institute Of Medical Sciences and Research Centre, Nashik

2. Associate Professor, Dept. of Biochemistry , Dr. Vasanttrao Pawar Medical College and research centre, Nashik

3. Assistant Professor, Dept. of Biochemistry , SMBT Institute of Medical Sciences and Research Centre, Nashik

4. Stacionian cum Assistant Lecturer, Preventive and social medicine, SMBT medical college, Nashik

Corresponding author : Dr. Surekha T. Nemade

Abstract

Medical field is updating its scope and boundaries based on research and findings during its present course .Medical world is fascinating and a platform for research which helps to improve the quality of life. Hence, knowing the key notes of research is must for a medical professional. This is achieved by the research methodology workshops conducted worldwide. This present study aims to evaluate the role of these workshops in improving the knowledge and analysis skills of the participants.

Material and Methods-This study was done on the workshops conducted in Maharashtra University Of Health Sciences, Nashik in the period of January 2012 to December 2013 for the medical teaching faculties and post graduate students. The evaluation of the pre test and post test was done using paired T test.

Results-The pretest mean score was 6.5625 which improved significantly to 11.0357 in post test analysis.

Conclusions-There was statistically significant improvement in the knowledge after post test demonstrating that these research methodology workshops should be conducted for medical faculties, post graduate students to improve the awareness level of writing dissertation as academic part as well as improving research skills in clinical practice.

Key-words- Pretest, posttest, research methodology

Introduction-

Research methodology, now being an integral part of medical education is added in the curriculum of the post graduate students by MCI.^[1]Medical council of India has stressed the need for a formal training in research methodology within the first six months of the post graduate. To improve the research experience among post graduates, MCI has made mandatory to attend not only one national/international conference but also give a oral/poster presentation and send the article for publication.^[2]

The aim of these research methodology workshops is that the students as well as medical professionals should get familiar with basic, clinical and translational research as it applies to the care of the patient. ^[3] The effectiveness of these workshops can be assessed by the pretest and posttest analysis. Hence, this study was conducted to ascertain the role of research methodology in terms of the improvement in the knowledge and analysis regarding research.

Aims and objectives-

1. To conduct pretest and posttest questionnaire for research methodology workshops.

2. To compare the pretest and post test analysis of workshop.
3. To evaluate the role of research methodology workshop in improving knowledge and analysis regarding research.

Material and Methods-

This study was done on research methodology workshops conducted during the period of January 2012 to December 2013 at Maharashtra University of Health Sciences, Nashik. Total six workshops were conducted during this period. For each workshop, a framed protocol was followed. The number of participants for each workshop was 20 which included post graduate students as well as the medical teaching faculties from the medical colleges affiliated to MUHS. For each workshop the circular

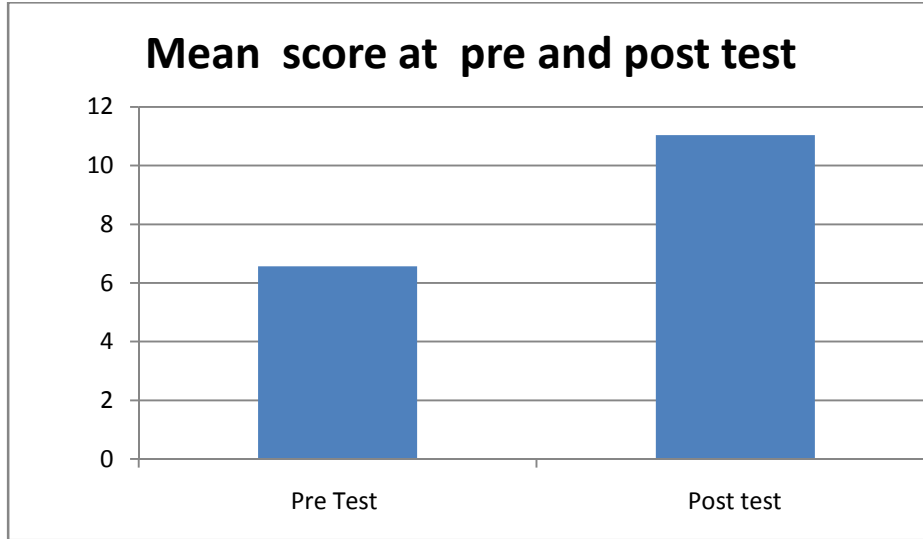
regarding the conduction of the workshop with dates was displayed on the website of MUHS. Participants from various colleges were registered for the same. The eligible and approved faculties were invited as speakers. A programme of three days workshop was conducted which included all the areas of research methods. On the first day of the workshop, a pre test questionnaire of 20 question (each of one mark) was given to the participants and was collected after the interval of 15 minutes .This questionnaire was based on the research methodology contents. After the three days workshop, a post test questionnaire was given to the participants again to assess the improvement in the knowledge. The pre test and post test data was analyzed by paired t test and was compared for its statistical significance. ^[4]

Results-

Table 1. Comparison of pre test and posttest scores

Sr. No.	Test	Mean± SD
1.	Pretest	6.5625±3.1070
2.	Posttest	11.0357±3.6438

P=0.0000000000000000007 P<0.01- Highly Significant



There was highly significant improvement in the knowledge and method of the research amongst the participants after the workshop.

Discussion-

Research methodology workshop has definitely improved the knowledge and interpretation aspect of the participant about research. The scope and spectrum of medical research has tremendously expanded. There are several difficulties related to ethical aspects, patient safety, confidentiality and cost. It is worthwhile to go through a formal training programme in research methodology to improve capacity and competence to conduct meaningful research.^[5] Many participants agreed that they were not aware about the many research aspects before the workshop, which is in accordance with the study done by P.R. Shankar et al.^[6]The curiosity and the

queries of the participants were satisfied as well as they were more well acquainted with the research paper format after the workshop. Yet, there are some limitations to these workshops in terms of lack of practical skill development or evaluation of the participants in terms of discussion or viva. The present evaluation was based on multiple choice questions, showing improvement in knowledge only. This observation was also stated by G. Prabhu et al.^[2] In addition, feedback of the participants also revealed that the sessions should be short and duration also to be curtailed down. Though there are some limitations to these workshops, they can incorporate the basic concept of research and its method.

Conclusion-

These workshops have improved the knowledge of participants regarding research and needs to be

improved in aspect of practical skills like writing dissertation and statistical analysis by the participant.

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