Development of a software package for online training in clinical Research Methodology

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OBJECTIVES

The objectives of the project were to develop user friendly software package for training in clinical research methodology consisting of steps involved in a research process, research design, development of research hypothesis, scale of measurement, sample design and estimation of sample size, methods of data collection and statistical analysis.

METHODS

The study material for this project has been prepared by referring books, hand books, published articles and other materials. The content of the study material prepared for this project was evaluated by faculty members and then the post graduate students were asked for their feedback regarding the material prepared. Then study material was modified as per the suggestions received from the faculty members as well as post graduate students. Then the study material was used for preparing software package. This software package has been developed using Microsoft Office PowerPoint 2002, Microsoft Office Excel 2002 and EPI6 program.

RESULTS

The content of the study material prepared for this project was first evaluated for level of understanding, the logical flow of the contents and depth of the content by two epidemiologist and four other faculty members, one from Community medicine and three from other field of specialty and then five post graduate students from different specialty were asked for their feedback regarding the study material. Then study material was modified as per the suggestions received from the faculty members as well as post graduate students.

The software package developed using study material prepared by us and then same is evaluated by five faculty members and five post graduate students for the style of presentation, ease of navigation through the presentation, for color combination and ease of using package. Then the software package was modified and simplified navigation through the presentation.

RECOMMENDATIONS

This study recommends this software package for step - by - step training in clinical research methodology especially for the beginners in research. This package provides simple to use sample size calculator and Stat-cal of Epi6 for the analysis of confounding. This software is very user friendly and easy to handle, hence it would be useful tool for self learning various concepts of research methodology and biostatistics.