

Knowledge, Attitude and Usage of Biostatistics among the undergraduate students of a Medical College in Southern India

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Studies worldwide show that several published research papers are flawed and irreproducible due to wrong methodologies/misinterpretation of statistical data secondary to lack of bio-statistics knowledge. Studies also reveal that students carry a negative attitude and lack confidence in biostatistics. A questionnaire-based cross-sectional study was done among the undergraduate medical students of our institution. Results were analysed using descriptive and inferential statistical tests. Out of study population of 600, comprising of first to final year MBBS students, 364(60.7%) responded. Higher participation from I(48.4%) and II(29.9%) year students and low participation from III(12.9%) and IV(8.8%) years was noted. 307(84.3%) had heard about biostatistics. 4.1% had formerly attended biostatistics courses. Many hadn't heard about any statistical software(83.5%) or statistical tests(75.3%). 94.3% believed knowledge of statistics is important for medicine. Interpreting results(48.1%), writing up results(47.5%) and performing basic statistical analysis(48.6%) were found to be moderately difficult by the 206(56.6%) students who use biostatistics. Out of 220(60.4%) students who took up research, everyone relied on others for statistical analysis, which is of high significance. 86.8% of students felt incorporating hands-on training in biostatistics into the medical curriculum was necessary; 83.2% were keen on enrolling for the same if conducted. Chi-square test showed no relation between good performance in mathematics at school and positive impression on biostatistics (p-value=0.094). Many students had heard about biostatistics, but had poor knowledge on the subject. Majority in our study displaying positive attitude towards biostatistics was in stark contrast with findings of many other studies.

Hands-on workshops in biostatistics should be incorporated into undergraduate medical curriculum to:

- instil sense of interest towards biostatistics in budding doctors
- increase quality and reliability of research papers
- promote statistical independence
- reduce cost of external statistical aids.

Biography

Deepika Babu Vijayakumar is a third year medical student in Government Kilpauk Medical College, Tamil Nadu Dr.M.G.R.Medical University. She has an immense interest in research and wants to explore ways of giving the best to patients. She has a deep desire to contribute to the betterment of medical education because she believes that 'a strong foundation ultimately translates into good patient care'. She is currently involved in two other research projects, one in the field of microbiology and the other based on AI in healthcare.

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