

A NEW APPROACH TO BIOSTATISTICS EDUCATION IN MEDICAL SCHOOL

Mesut AKYOL¹ and S. Yavux SANISOGLU²

¹Dept. of Biostatistics, Gulhane Military Medical Faculty, Ankara - Turkey

²Ministry of Health of Turkey, Ankara - Turkey
makyol@gata.edu.tr

INTRODUCTION

Medical education in Turkey lasts six years. In the first three years the students take theoretical courses and laboratory applications. In the 4th year they meet the patients for the first time.

Last year, medical information and biostatistics educations were combined under the name of Biostatistics and Medical Informatics. In spite of the differences in the applications from one university to the other, they teach this course at the first year or at the first three years. After the 3rd grade, they don't teach biostatistics anymore. But, during the biostatistics, it is necessary to teach the techniques of collecting the demographic and health data, summarizing the data, presentation of the data of the society they live in. Further more, it is also necessary to teach how to arrange a scientific research, conduct it, collect the data necessary for the research, convert the findings and analysis results to valid and reliable scientific information and how to prepare a scientific paper. *Since the new students know nothing about health, it is not suitable to teach biostatistics to them.*

OUR NEW PROPOSAL

We, as the personnel of the *Gulhane Military Medical Faculty*, suggest that the course of medical information should be given completely to the students in their first year. So, they will be able to know the information methods and also they will be able to use computer. At the second grade we suggest to teach to the students methods of experimental design and sources of data information and at the third grade they should learn the methods of statistical analysis. This grade should be supported with statistical software (SPSS, R, NCSS, Medcalc, etc.) courses.

For the 4th grade, *when the students meet the patients for the first time, we suggest a course including the statistical methods related to their internship clinic subjects.* These courses should be taken during the following years of 5th and 6th grades. For example, a student at the 5th grade take cardiovascular surgery internship, he/she should take a biostatistics course including Odds Ratio, Relative Ratio etc. On the other hand, orthopedic internship students should take a course of diagnostic and screening test and ROC analysis to evaluate the tests for six hours.

RESULTS AND RECOMMENDATIONS

The new approach suggests that the students will learn the medical information method and techniques and basic subjects of biostatistics in their first three years. After the first three years, they will learn advanced techniques of biostatistics during their internship. *In this way, they will be equipped when they graduate with regard to biostatistical methods.*