A MODELLING APPROACH TO THE ANALYSIS OF MENSTRUAL BLEEDING DATA

B.N.N. Weerasooriya
Dept. of Statistics & Computer Science,
University of Colombo.

Previous studies show that different contraceptives affect the menstrual bleeding patterns of women in different ways. The knowledge of how and to what extent contraceptives affect the menstrual bleeding patterns and how such effects vary with respect to the background factors that are of interest like age, number of pregnancies, previous methods used etc., are important aspects in assessing the acceptability of those contraceptives.

This study presents a different approach of analysis (modelling) which enables the examination of this type of data. A sample of data from WHO is used to discuss the usefullness of the proposed technique.

Fitting a statistical model to the bleeding segment lengths taking background such as sge, number of pregnancies etc. as explanatory variables may be helpful in explaining this type of data. In this study a series of statistical models is fitted to the bleeding data (bleeding segment lengths) in order to select the best model which can sensibly be used to explain the observations made under from the number of methods of contraception. Strictly speaking efforts are made to model mean bleeding segment lengths of different subgroups of the population under consideration.

References:

Baker, R.J. & Nelder, J.A. (1978) Generalised Linear interactive Modelling Oxford: Numerical Algorithm Group, (GLIM) Release 3.

Cox, D.R. (1962) Renewal Theory London: Methuen & Co.,

McCullagh, P. & Nelder, J.A. (1983) Generalised Linear Models London: Chapman and Hall.