

Handedness, Footedness and Familial Sinistrality Among Normal Individuals

Bhagat Singh*

Meerut College, Meerut

Affiliated to Ch.Charan Singh University, Meerut (UP)

Abstract

The objective of the present research was to study the handedness, footedness and familial sinistrality among normal individuals. 700 subjects were selected randomly from the normal population. The mean age of the respondents was 33.98 years with S.D. of being 18.70 years. Steenhuis and Bryden (1989)'s five point scale handedness questionnaire was used to collect the data. Some items were also included like the arm crossing, leg crossing, leg used to kick a ball and eye used to see a far distance object. Each subject was tested individually. Chi-square and Correlation analysis were used to test the different hypothesis. Results showed that out of 700 subjects, only 32 subjects were left handed. There were 668 right hander, out of which 18.3% (122) have either one (16.8%), two (1.2%) or three left handed (0.3%) member in their family, while out of 32 left hander, there were only 6.3% (2) left handers who have one left hander in their family. There was a significant correlation ($r = 0.817$) between handedness and footedness. There was a significant difference ($\chi^2 = 491.365$) between handedness and footedness. On the basis of the results and discussion it can be concluded that there are 4.6% left hander in normal Indian population which is very low in comparison to world left hander's percentage i.e. 8-10%. Handedness is also significantly correlated with other asymmetries like footedness. Left hander uses their left leg to kick a ball and same case is with the right hander. There is no relationship between Handedness and familial sinistrality.

Key Words: Handedness; Footedness; Familial Sinistrality (FS)

The English word 'sinister' comes from the Latin word for Left. The layperson tends to focus upon Handedness as the sole factor of sidedness. It is important to realize that left-eyedness, left-footedness and left-earedness also exist. Therefore, sidedness is a function of all these factors and scientists use questionnaires that measure sidedness. Because handedness is not just about hands, it is useful to talk more generally about Laterality, which is the specialization of a particular side of the body to perform a particular task. Many people are all right-sided or all left-sided for many functions, others have a combination of left and right dominance. Hand dominance also can

vary depending on the task. Some people write with the pen in their right hand, but throw, swing a tennis racket, unscrew the lid of a jar and do virtually everything else left-handed. Hand preference is usually defined as the tendency to perform several tasks with one hand rather than the other and handedness shows substantial individual variability. Hand preference has been measured by questionnaires developed by several researchers (Annett, 1970; Oldfield, 1971; Raczkowski et al., 1974; Bryden, 1977; Chapman and Chapman, 1987).

There are various theories related to handedness. Genetic theorists (Levy and