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| Estimation of Stature from Foot Length in Population of Rajkot Region, Gujarat |
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**Abstract**

 Context: The use of anthropology has increased day by day by forensic experts for identification. With increasing frequency of mass disasters due to nature and man, the numbers of deaths are increasing which pose a threat for identification due to mutilation. Similar situation is encountered in cases of murder, where there is destruction of identity. Such situations give rise to studies which estimate the stature from different body parts. Aims: The present study was carried out with the aim to evaluate the anthropometric relationship of foot length with the stature of an individual in study population and to derive regression formulae and multiplication factor to estimate stature from these dimensions. Settings and Design: The present is an observational study wherein total of 208 individuals were selected for study, 105 males and 103 females, from 10 to 60 years of age. The measurements were carried out in the department for a fixed duration to avoid diurnal variation. Methods and Material: The parameters were measured after excluding any disease or deformity. Stature was measured with the subjects barefoot, standing erect, the feet pointed outward at 60 degree angle and head oriented in the Frankfurt plane. Foot length (FL) was taken on left foot as a straight distance between the most posteriorly projecting points of the heel (Pternion) to the most anteriorly projecting point (Acropodion) of the first or second toe whichever was bigger when the foot was fully stretched. After proper positioning measurements was taken. Statistical Analysis used: Statistical programme for social science and Microsoft excel. Results: The measured foot length showed significant correlation (p<0.05) with the stature of the individual. Conclusion: Linear regression equation and multiplication factor for estimating stature from foot length was derived for males, females and either sex. The regression equation gives more accurate results than multiplication factor for estimation of stature.

Keywords: Stature; Foot Length; Regression Equation.