

Genetics of Quantitative Traits in Human: Inbreeding as an Approach of Study

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ABSTRACT To understand genetic structure of human population, population geneticists, medical geneticists and anthropologists traditionally use correlation and heritability as a method despite some limitations. The study of inbreeding effect on quantitative traits may provide a useful approach. The basic premise is that increased homozygosity is expected in inbred families that lead to a higher probability of observing recessive inheritance. So it is useful for detecting the recessive genes by studying distribution of values in different inbreeding levels. This study tries to examine the genetics of some anthropometric traits in different inbreeding levels among growing children by analyzing the changes of means and variances with inbreeding in each age and verifies existing knowledge about genetics of anthropometric traits. The uniqueness of this study is that data has been collected with the help of extended pedigree of each household of an endogamous population and compared individuals in different inbreeding levels controlling socio- economic and physical environment that can confound genetic effects of inbreeding.