

Consanguinity and Associated Genetic Effects in Five Backward Class Communities of Palakkad District, Kerala

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ABSTRACT The consanguinity study was carried out in five backward class communities of the Palakkad district in the state of Kerala for assessing and evaluating the inbreeding-related harmful effects in them. Data was collected through random sampling using a structured questionnaire. The major mating patterns observed were first cousin, second cousin, first cousin once removed and uncle-niece types. The frequency of consanguinity in these communities ranged from 12.6 (Vaduka) to 33.3 (Telugu Chetty) percent. Total mortality rates ranged from 13.3 (Muslim) to 21 (Vaduka), and morbidity rates from 5.7 (Ezhava) to 13.3 (Vaduka), and the differentials were consistently significant in either case. The risk effects were positively correlated with degree of relatedness of spouses. It is contended that the magnitude of risk effects of inbreeding incident in the communities could be due to genetic homozygosis of lethal or sub-lethal recessive genes inherited by the consanguineous spouses from their common ancestor.