

Inbreeding Among Sunni Muslims of Anantapur, Andhra Pradesh

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ABSTRACT The study was carried out among 410 couple of the Sunni Muslims of Anantapur, Andhra Pradesh, to ascertain the prevalence of consanguinity and coefficient of inbreeding. Sunni Muslims of Anantapur showed a high incidence (16.34%) of Matrilateral (MBD) cousin marriages over other types of marriages. The co-efficient of inbreeding among Sunni Muslims is low (0.015) and the report is in agreement with other studies on Muslims from Andhra Pradesh.

INTRODUCTION

Inbreeding is a form of non-random mating that takes place between close relatives having similar identical genes. It is a consequence of mating between genetically related persons with atleast one or more common ancestors and the resulting offspring of such mating is said to be inbred. Inbreeding reduces the number of heterozygotes and increases the homozygotes. It, thus, ultimately reduces the variation in a population. The different types of consanguineous marriages and inbreeding among Muslims in India have been reported by various workers (Ali, 1968; Basu, 1975; Das and Ghosh, 1992; Goswami, 1970; Hoque and Bandhopadhyay, 1992). In Andhra Pradesh too, (Renuka Nair and Murthy, 1977; Ramakrishna Reddy, 1987; Sanghvi, 1966) data on the pattern and incidence of consanguineous marriages of Muslim population are available except Muslims of Anantapur. The present study is aimed to add substance to the existing literature. Further, the present study is also compared with other published data of Muslims in India.

MATERIAL AND METHODS

The material for the present study are drawn from Sunni Muslims of Anantapur town,

Andhra Pradesh. Most Muslims of this town are merchants, labourers, tailors and other job holders. The Sunni Muslims of the present study can be classified into Sayyads, Sheiks, Pathans, Moghuls and Labbais. The Sheiks are reported to be numerous than others. The field work for the present study has been carried out during February, 1995.

The data on each family was collected using a comprehensive questionnaire and pedigree analysis. The individuals in the Mendelian population were recognized by tracing the consanguineous relationship between their parents in pedigrees going back to atleast two generations. The inbreeding co-efficient was calculated as suggested by Wright (1922).

RESULTS AND DISCUSSION

Table 1 shows the prevalence of consanguineous marriages and co-efficient of inbreeding. Altogether 102 families were consanguineous with a percentage of 25.00 in a total study of 410 marriages. The most frequent one is matrilateral cousin marriages (16.34%) followed by patrilineal cousin marriages (3.65%). This is in agreement with the common trend in South Indian Population. However, the uncle-niece type of marriages are less frequent among Muslims and constitute only 0.73%. The other distant type of marriages like first cousin once removed (1.46%) second cousin marriages (0.73%) occur less frequently. The mean inbreeding co-efficients (α) for autosomal and sex linked genes were found to be 0.015 and 0.02262, respectively.

Table 2 shows the comparison of consanguineous marriages and co-efficient of inbreeding with other Muslim groups of India. It can be

Table 1: Prevalence of consanguineous marriages and inbreeding coefficient among the Sunni Muslims of Anantapur

Type of marriage	Marriages		Mean Inbreeding Coefficient (F)	
	No.	Percentage	Autosomal	Sex-linked
Non-consanguineous	308	75.12	-	-
Consanguineous	102	24.88	-	-
Cross-cousin:				
Uncle-niece	3	0.73	0.0009	0.0009
First Cousin:	90	21.95	0.0140	-
Cross cousin:				
Matrilateral	67	16.34	-	0.0204
Patrilateral	15	3.65	-	0.0000
Parellel cousin:				
Matrilateral	5	1.21	-	0.00076
Patrilateral	3	0.73	-	0.0000
First cousin- once removed	6	1.46	0.0005	0.00045
Second cousin	3	0.73	0.0001	0.00011
Total	410	100.00	0.0155	0.02262

summarised from the table that the Sunni Muslims of Anantapur differ significantly from their counterparts of Muslims and Boharas of Maharashtra (59.3%) (Goswami, 1970) showing higher incidence of consanguinity followed by Muslims of Andhra Pradesh (46.10%) (Roychoudhury, 1976). The lower incidence of consanguinity is found in Sunni Muslims of West Bengal (4.52%) (Das and Ghosh, 1992). The

Shias of West Bengal (6.01%) (Das and Ghosh, 1992). Muslims of Maharashtra (20.17%) (Sanghvi et al., 1956) shows the prevalence of consanguineous marriage in increasing order. The present study is by and large in agreement with Muslims of Andhra Pradesh (25.4%) (Renuka Nair and Murthy, 1977).

The co-efficient of inbreeding among Muslims of Anantapur and others speaks a definite change in the tradition. According to the Islamic Doctrine as pronounced by the Prophet Mohammed that as first Muslims are advised to go for mates within the close kin and if not available then search for mates outside the kin after obtaining due permission from close kin. But the modern civilization is like tempest and all the rigid traditions of Muslims are subjected to change. Thus, it is a common trend in Muslims now-a-days to go for mate outside the close kin groups, thereby, registering a decline in consanguineous marriages.

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Table 2 : Comparison with other Muslim groups of India

Population	Number of marriages	Consanguineous marriages (%)	Inbreeding co-efficient	Author
Sunni Muslims of Anantapur	410	24.87	0.015	Present study
Sheiks of Andhra Pradesh	576	34.03	0.021	Ramakrishna Reddy, 1987
Sayyads of Andhra Pradesh	571	35.90	0.022	Ramakrishna Reddy, 1987
Muslims of Andhra Pradesh	356	36.20	0.029	Sanghvi, 1966
Muslims of Andhra Pradesh	1157	25.40	0.014	Renuka Nair & Murthy, 1977
Muslims of Andhra Pradesh	65	46.10	0.030	Roychoudhury, 1976
Muslims and Parsis of Maharashtra	2014	20.17	0.010	Sanghvi et al., 1956
Muslims of Maharashtra	719	17.50	0.011	Malhotra et al., 1976
Muslims and Boharas	351	59.30	0.036	Goswami, 1970
Muslims of Tamil Nadu	983	34.20	0.021	Roychoudhury, 1976
Muslims of Kerala	215	22.30	0.012	Roychoudhury, 1976
Muslims of Kerala	562	17.30	0.011	Roychoudhury, 1976
Sunni of West Bengal	155	4.52	0.0025	Das and Ghosh, 1992
Shias of West Bengal	333	6.01	0.0036	Das and Ghosh, 1992

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