## **Debate**

## INCREASING PREVALENCE OF CONSANGUINEOUS MARRIAGE CONFIRMED IN KHYBER PAKHTUNKHWA PROVINCE, PAKISTAN

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In their article on tribal Pashtuns in north-west Pakistan, Ahmad *et al.* (2015) drew attention to the slight decline during the last 20 years in the prevalence of consanguineous marriage in Bajaur Agency, which runs counter to our recent findings in neighbouring Malakand district (Sthanadar *et al.*, 2014). We would like to clarify an apparent misreading of our paper by Ahmad *et al.* In their Discussion, they indicated that the 66.4% ( $\alpha = 0.0338$ ) consanguineous marriage rate estimated in Malakand was based on the parents of children with hearing impairment. This is not the case. As stated in our paper, the study was conducted by male and female interviewers at household level in rural areas of Malakand between January 2011 and February 2013, as part of a population-wide investigation to assess the prevalence of childhood hearing impairment. The families studied were representative of the rural population as a whole, and not restricted to families with a hearing-impaired child. The reported consanguineous marriage rate in Malakand should therefore be interpreted from a population-wide perspective. It does *not* represent the level of parental consanguinity in children with a hearing impairment.

To determine whether the post-1995 decline in consanguinity reported for Bajaur was observed more widely in Pakistan, and more particularly in the north-west Khyber Pakhtunkhwa province (KPK), we have extracted information on consanguineous marriage collected as part of the Pakistan Demographic and Health Surveys (PDHS), conducted in 1990/91, 2006/07 and 2012/13 (NIPS, 1992, 2008, 2013). The primary aim of the PDHS is to evaluate changes in the demographic and health status of the population of Pakistan, with detailed personal and family information collected at household level by trained interviewers. On a nationwide basis, consanguineous marriages declined slightly in

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Source	First cousin (%)	Second cousin (%)	Other related (%)	Unrelated	Mean coefficient of inbreeding $(\alpha)$	Reference
PDHS 1990/91 $n = 6611$	50.3	10.9	1.4	37.2	0.0331	NIPS (1992)
PDHS 2006/07 $n = 10,023$	52.4	8.1	6.5	33.0	0.0340	NIPS (2008)
PDHS 2012/13 $n = 13,558$	48.5	7.9	8.9	34.6	0.0315	NIPS (2013)

Table 1. Prevalence of consanguineous marriage in Pakistan

**Table 2.** Prevalence of consanguineous marriage in Khyber Pakhtunkhwa province, Pakistan

Source	First cousin (%)	Second cousin (%)	Other related (%)	Unrelated	Mean coefficient of inbreeding $(\alpha)$	Reference
PDHS 1990/91 $n = 878$	38.3	12.7	1.2	47.8	0.0259	NIPS (1992)
PDHS 2006/07 $n = 1351$	42.6	8.5	5.6	43.1	0.0280	NIPS (2008)
PDHS 2012/13 $n = 1908$	45.1	8.2	6.3	40.3	0.0295	NIPS (2013)

frequency in Pakistan between 1990/91 and 2012/13 (Table 1), principally due to a recent reduction in consanguinity in Punjab, which is numerically the largest and the most urbanized province. By comparison, in KPK there were increases across the three time periods in the percentages of first cousin unions, all consanguineous marriages, and in the mean coefficients of inbreeding ( $\alpha$ ) calculated for first and second cousin unions (Table 2). From these nationally representative data it would appear that, for whatever reason(s), the lower levels of consanguineous marriage observed in Bajaur Agency by Ahmad *et al.* are not representative of Pakistan, and certainly not of KPK.

A more general question arises, i.e. the extent to which individual sub-populations conform to the high levels of consanguineous marriage that previously have been reported in Pakistan, and more particularly observed in the largely tribal populations of the former North West Frontier province, now Khyber Pakhtunkhwa province (KPK). Although geographically adjacent, Bajaur and Malakand differ administratively since Bajaur is one of seven semi-autonomous Federally Administered Tribal Areas (FATA) under the direct authority of the Federal Government of Pakistan (Samdani, 2011), whereas Malakand and seven other part-districts are Provincially Administered Tribal Areas (PATA) subject to the Provincial Government of Khyber Pakhtunkhwa (Mehboob, 2011).

Historical sources indicate that Bajaur was effectively isolated from the outside world from the 16<sup>th</sup> to the mid-19<sup>th</sup> centuries (Caroe, 1958) and, even during the British colonial rule that followed, communication with other adjoining regions was limited (Wylly, 1912). As noted by Ahmad *et al.*, in the last 35 years this isolation has been significantly disrupted, initially through the establishment of bases occupied by groups

disputing the invasion of adjacent Afghanistan by the Soviet Union, and since 2001 by various factions of the Taliban, al-Qaeda and other jihadist groups, which include Afghans, Arabs, Chechens and Uzbekhs in their ranks. In turn, the activities of these groups have provoked vigorous retributive action by the Pakistan Armed Forces (Rahmanullah, 2010). Against this background of increased personal, family and community insecurity, it would seem that in north-west Pakistan different, albeit related, tribal groupings may have opted for divergent matrimonial strategies, which in Bajaur reportedly has included marriages between local women and foreign fighters (Rahmanullah, 2010).

Clearly this is a topic that merits further detailed investigation, the more so given a number of unexpected findings in the Bajaur study, e.g. the very low level of consanguineous marriage reported for the previous parental generation (5.2%), and the almost identical levels of consanguinity recorded for rural (22.2%;  $\alpha = 0.0134$ ) and urban (22.8%;  $\alpha = 0.0135$ ) respondents in the present generation. However, given the ongoing high levels of conflict in Bajaur and other neighbouring regions, a representative study of this type may prove impractical in the foreseeable future.

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