

Debate

INFANT AND CHILD MORTALITY IN RURAL EGYPT

A Comment

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In their interesting analysis of infant and child mortality in rural Egypt, derived from data collected as part of the World Fertility Survey in 1980, Casterline, Cooksey & Ismail (1992) specifically noted the significant differentials in neonatal and early infant mortality which existed between Lower and Upper Egypt. The differentials could not be explained in terms of socioeconomic variables, the household sanitary environment, maternal risk factors or medical institutions and personnel. Conversely, it was suggested that they could be attributed to fundamental though unidentified cultural differences between the two regions.

Marked differences in the prevalence of marriages between close biological relatives could provide a convincing cultural explanation for the variant patterns of postnatal losses. Increased mean levels of postnatal mortality have been widely reported in the progeny of consanguineous marriages due to the expression of detrimental recessive genes, especially in the first year of life (Bittles *et al.*, 1991), and marriages between close relatives were reported at high frequency in the 1988 Egypt Demographic and Health Survey (EDHS). The EDHS also showed substantially higher mean levels of consanguinity in rural Upper than in rural Lower Egypt, with 39.6% versus 28.6% first cousin marriages respectively in the two areas (Sayed *et al.*, 1989; Bittles, 1992), and significant excess neonatal and early infant deaths in first cousin progeny.

With these findings in mind and adopting a wider perspective, it is suggested that in all countries and communities where consanguineous marriages are strongly favoured, which includes much of sub-Saharan as well as North Africa, West, Central and the greater part of South Asia (Bittles, 1990), data on the biological relationship between spouses should be collected and analysed as an essential variable in biosocial studies.

References

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A Reply

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We are grateful to Dr Bittles for his comment, calling attention to an important biosocial variable, namely the biological relationship between spouses, and agree that this variable should be incorporated in analyses of infant and early childhood mortality in those societies where consanguineous marriages are common. In fact the Egyptian data that were analysed (the 1980 Egyptian Fertility Survey) contain a measure of the biological relationship between spouses. In preliminary analyses no significant effect of this variable was detected, as coded on infant or early childhood mortality, and thus the variable was dropped from the final equations. However, the use of this variable was not informed by an understanding of genetics, so by no means should these empirical results be taken as the final word. We second Dr Bittles' recommendation that information on the biological relationship between spouses be collected and subjected to systematic analysis. More research is needed on the role of genetics in determining human health and survival.