January 2003

Prevalence and perceptions about consanguineous marriages among patients presenting to family physicians, in 2001 at a teaching hospital in Karachi, Pakistan

Waris Qidwai
Aga Khan University, waris.qidwai@aku.edu

Iqbal Azam
Aga Khan University, iqbal.azam@aku.edu

Faisal M Khan
Aga Khan University

Follow this and additional works at: https://ecommons.aku.edu/pakistan_fhs_mc_fam_med

Recommended Citation
Qidwai, W., Azam, I., Khan, F. (2003). Prevalence and perceptions about consanguineous marriages among patients presenting to family physicians, in 2001 at a teaching hospital in Karachi, Pakistan. Asia Pacific Family Medicine, 2(1), 27-31.
Available at: https://ecommons.aku.edu/pakistan_fhs_mc_fam_med/164
Prevalence and perceptions about consanguineous marriages among patients presenting to family physicians, in 2001 at a Teaching Hospital in Karachi, Pakistan

Waris QIDWAI, Iqbal Azam SYED and Faisal M KHAN

The Aga Khan University, Karachi, Pakistan

Abstract

Aim: Consanguineous marriages are common in Pakistan despite their declining popularity in the developed world. In the present study, a questionnaire based survey was used to record the attitudes and perceptions of consanguineous marriages among the sample population.

Methods: A questionnaire was developed to collect information on the acceptability of, and perceptions about, consanguineous marriages among patients presenting to family physicians, at the Family Practice Center of the Aga Khan University Hospital in Karachi, Pakistan. Demographic data was collected as part of the questionnaire. Each participating patient signed a consent form after assurance of confidentiality was provided.

Results: A total of 393 patients were surveyed. The mean age of the study population was 29.4 years, 165 (42%) were men and 228 (58%) were women. The majority were married, well educated and were students, in private or government service or self employed. One hundred (25%) of the respondents were either married or were planning to marry their first cousin, and 57 (14%) their second cousin. The main reasons in favor of consanguineous marriages were quoted as: ‘arranged marriage’, ‘it is healthy to marry within the family’ and ‘it is traditional’. Some 271 (69%) of the respondents said ‘yes’ to their son or daughter marrying within the family. Constraints of religion, status, caste, family differences and the fear of incompatibility were among the reasons quoted as difficulties in finding a mate outside the family. Neurological diseases, diabetes mellitus and hypertension were quoted as diseases resulting from consanguineous marriages. Security of knowing the mate in the family, culture and religion, and having more information about the mate before marriage were quoted as reasons for the continued popularity of consanguineous marriages in Pakistan.

Conclusions: The present study demonstrated a high degree of acceptability of consanguineous marriages among the study population and documented factors influencing such marriages. We recommend further studies, intervention strategies and debate on the issue.

Key words: consanguinity, family, marriage.

Introduction

Consanguineous marriages are extremely common in Pakistan. Approximately 60% of marriages are reported to be consanguineous and 80% of these are between first cousins.1

The prevalence of consanguineous marriages has been implicated in the high rates of perinatal mortality and congenital malformations among the Pakistani population.2 An increased relative risk of infant death has been found to be associated with parent’s consanguinity.3 Consanguinity-associated deaths have been found to be consistently higher in neonatal, infant and childhood periods.4
The continuing popularity of consanguineous marriages in Pakistan is even quoted as a reason for future fertility reduction.\(^5\)

The rates of consanguineous marriages are much less in the developed world and have continued to decline.\(^6\) Even in parts of the developing world, decline in consanguinity has been noted.\(^7\) It has been argued that the major reasons for a preference for consanguineous marriages in Pakistan are sociocultural rather than for any perceived economic benefits, either in the form of consolidation of family property or smaller and less expensive dowries.\(^8\)

The aim of the present project was to study the acceptability of, and attitudes towards, consanguineous marriages in the study population.

**Methods**

**Study design**

This was a descriptive study using a questionnaire. The questionnaire was developed in keeping with the objectives of the study. Both open ended and closed questions were used. The questionnaire was pilot tested, and the investigators met before the start of the study to discuss its final administration.

All patients in the waiting area were requested to participate in the study, based on their availability and convenience. The study investigators administered the questionnaire, after the patients agreed to participate. The participating patient signed a consent form after assurance of confidentiality was provided. The interviewers asked the questions and filled out the questionnaire. Explanations were provided for any questions requiring clarification.

**Study population**

The study population comprised patients visiting the Family Practice Center, at the Aga Khan University Hospital (AKUH), Karachi. The study was conducted in June 2001. One hundred and fifty patients are seen here daily by the family physicians, from Monday to Saturday. Pakistan is a developing country with the majority of the population not well educated and underprivileged. Aga Khan University Hospital is an expensive, teaching hospital, providing primary, secondary and tertiary level care. Patients visiting AKUH are generally well educated and socioeconomically better off than the rest of the population.

**Data analysis**

As we planned a descriptive study without carrying out any statistical tests on the data, sample size estimation was not considered.

The questionnaire was coded and the answers were grouped together.

Epi-info and SPSS computer software were used for data entry and analysis.

**Results**

A total of 393 patients participated in the survey, with 17 refusals.

The study population was young with a mean age of 29.4 years, 165 (42%) were men and 228 (58%) were women. The majority were married, well educated and were students, in private or government service, self-employed or a housewife.

One hundred (25%) of the respondents were either married or were planning to marry their first cousin, and 57 (14%) their second cousin.

A wide range of reasons for consanguineous marriages were given but, the practice of arranged marriages appeared to be the main one (Table 1). It was found that 271 (69%) of the respondents were happy for their children to have consanguineous marriages.

Constraints of religion, status and caste were quoted as the main reasons for difficulties in finding a mate outside the family (Table 2).

A number of participants thought that physical diseases could result from consanguineous marriages. Some 155 (35.6%) respondents, felt neurological

| Table 1 List of respondent’s reasons for consanguineous marriages (n = 393) |
|------------------------------------------|----------------|--------|
| **Reason**                               | **Number**    | **Percent** |
| 1. Arranged marriage                    | 159           | 44.7   |
| 2. It is healthy                        | 43            | 12.0   |
| 3. It is a tradition to marry in the family | 43          | 12.0   |
| 4. Love marriage                        | 25            | 7.0    |
| 5. Inability to find a proper mate      | 21            | 5.9    |
| 6. Lack of social contacts              | 02            | 0.6    |
| 7. Not known                            | 63            | 17.7   |

\(^*\)More than one reason was given by respondents.

| Table 2 List of respondent’s reasons for difficulties in finding a mate outside the family (n = 393) |
|----------------------------------------------------------|----------------|--------|
| **Reasons**                                              | **Number**    | **Percent** |
| 1. Constraints of religion, status, caste                | 138           | 61.6   |
| 2. Family differences                                    | 31            | 13.8   |
| 3. Fear of Incompatibility                               | 26            | 11.6   |
| 4. Financial issues                                      | 11            | 4.9    |
| 5. Lack of availability                                  | 10            | 4.5    |
| 6. Differences in education                              | 08            | 3.5    |
diseases would result, 90 (20.6%) linked them to high blood pressure, 89 (20.4%) to diabetes mellitus, 83 (19%) to thallasemia, and 19 (4.3%) to tuberculosis.

Security of knowing the mate prior to marriage was considered to be the main reason, for the continued popularity of consanguineous marriages in Pakistan (Table 3).

There seemed to be more acceptance of consanguinity in those over 35 years of age in comparison to those under 25 years. Women appeared to be more in favor of consanguinity than men. Those who had been married seem to be substantially more in favor of consanguinity than those who were unmarried. An inverse relationship between approval of consanguinity and level of education was suggested. Respondents in certain professions were more in favor of consanguinity (Table 4).

### Discussion

The study population was young, well educated and better placed socioeconomically than the wider community. Different attitudes may exist in the community in terms of acceptance and perceptions regarding consanguinity. As we administered the questionnaire verbally, there was the possibility of interviewer bias. An attempt to reduce this bias involved different investigators’ understanding of the questionnaire was undertaken. Pilot testing of the questionnaire prior to the actual study further strengthened its validity and reliability.

The prevalence of 40% of consanguineous marriages, is in keeping with the results of previous studies, which have quoted figures between 31 and 60%. We have noted trends in association between demographic parameters and consanguinity. These trends could be the basis for further studies with a larger sample size. Interventional strategies can be based on these trends.

---

**Table 3** List of reasons for the popularity of consanguineous marriages in Pakistan (n = 393)

| Reason†                           | Number | Percent |
|----------------------------------|--------|---------|
| 1. Security of knowing the mate in the family, before marriage | 224    | 53.6    |
| 2. Cultural, religious reason     | 130    | 31.1    |
| 3. More information about mate before marriage              | 12     | 2.8     |
| 4. Illiteracy                        | 11     | 2.6     |
| 5. More trust available within family               | 09     | 2.3     |
| 6. Financial issues                   | 04     | 0.9     |
| 7. Not known                           | 28     | 6.7     |

† More than one reason given by respondents.
Table 4: Demographic parameters and consanguinity (n=393)

| Demographic parameter | Married/planning to marry | Agree with children marrying within the family |
|-----------------------|---------------------------|-----------------------------------------------|
|                       | First cousin Yes | No |                    | Second cousin Yes | No |                    |
| Age group: (years)    | n | % | n | % | n | % | n | % | n | % |
| <25                   | 26 | 26 | 101 | 35 | 12 | 21 | 115 | 34 | 78 | 29 | 49 | 40 | 127 |
| 25–34                 | 41 | 41 | 106 | 36 | 22 | 39 | 125 | 37 | 105 | 39 | 42 | 34 | 147 |
| >35                   | 33 | 33 | 86 | 29 | 23 | 40 | 96 | 29 | 88 | 32 | 31 | 26 | 119 |
| Sex:                  |               |    |      |     |    |      |     |     |    |    |    |    |    |
| Male                  | 45 | 45 | 121 | 41 | 23 | 40 | 143 | 42 | 126 | 46 | 40 | 32 | 166 |
| Female                | 55 | 55 | 172 | 59 | 34 | 60 | 193 | 58 | 145 | 54 | 82 | 68 | 227 |
| Marital status:       |               |    |      |     |    |      |     |     |    |    |    |    |    |
| Unmarried             | 27 | 27 | 110 | 37 | 14 | 25 | 123 | 37 | 79 | 29 | 58 | 48 | 137 |
| Ever married          | 73 | 73 | 183 | 63 | 43 | 75 | 213 | 63 | 192 | 71 | 64 | 52 | 256 |
| Educational level:    |               |    |      |     |    |      |     |     |    |    |    |    |    |
| Illiterate            | 9 | 9 | 22 | 8 | 7 | 12 | 24 | 7 | 21 | 8 | 10 | 8 | 31 |
| Primary               | 13 | 13 | 24 | 8 | 11 | 19 | 26 | 8 | 32 | 12 | 5 | 4 | 37 |
| Secondary             | 15 | 15 | 20 | 7 | 8 | 14 | 27 | 8 | 25 | 9 | 10 | 8 | 35 |
| Matriculation         | 20 | 20 | 35 | 12 | 6 | 10 | 49 | 15 | 42 | 16 | 13 | 11 | 55 |
| Intermediate          | 17 | 17 | 71 | 24 | 12 | 21 | 76 | 22 | 56 | 20 | 32 | 26 | 88 |
| Graduate              | 22 | 22 | 92 | 31 | 8 | 14 | 106 | 31 | 72 | 27 | 42 | 35 | 114 |
| Postgraduate          | 4 | 4 | 29 | 10 | 5 | 10 | 28 | 9 | 23 | 8 | 10 | 8 | 33 |
| Total                 | 100 | 293 | 57 | 336 | 271 | 122 | 393 |

Conclusion

We have found a high prevalence of consanguineous marriages among the study population and we have also documented factors influencing such marriages. We recommend a debate on this important issue, further studies and intervention strategies including patient education.

References

1. Hussain R, Bittles AH. The prevalence and demographic characteristics of consanguineous marriages in Pakistan. J. Biosoc. Sci. 1998; 30: 261–75.
2. Ahmad WI. Reflections on the consanguinity and birth outcome debate. J. Publ. Health Med. 1994; 16: 423–8.
3. Yaqoob M, Cnatinjou S, Jalil F, Zaman S, Iselius L, Gustavson KH. Risk factors for mortality in young children living under various socio-economic conditions in Lahore, Pakistan: with particular reference to inbreeding. Clin. Genetics 1998; 54: 426–34.
4. Bittles AH, Grant JC, Shami SA. Consanguinity as a determinant of reproductive behavior and mortality in Pakistan. Int. J Epidemiol. 1993; 22: 463–7.
5. Hussain R, Bittles AH. Consanguineous marriage and differentials in age at marriage, contraceptive use and fertility in Pakistan. J. Biosoc. Sci. 1999; 31: 121–38.
6. Smith MT. Estimates of cousin marriage and mean inbreeding in the United Kingdom from ‘birth briefs’. J. Biosoc. Sci. 2001; 33: 55–66.
7. Krishnamoorthy S, Audinarayana N. Trends in consanguinity in South India. J. Biosoc. Sci. 2001; 33: 185–97.
8. Hussain R. Community perceptions of reasons for preference for consanguineous marriages in Pakistan. J. Biosoc. Sci. 1999; 31: 449–61.
9. Shami SA, Grant JC, Bittles AH. Consanguineous marriage within social/occupational class boundaries in Pakistan. J. Biosoc. Sci. 1999; 32: 91–6.
10. Wahab A, Ahmad M. Biosocial perspective of consanguineous marriages in rural and urban Swat, Pakistan. J. Biosoc. Sci. 1996; 28: 305–13.
11. Jorde LB. Consanguinity and prereproductive mortality in the Utah mormon population. Human Hered. J. 2001; 52: 61–5.
12. Dessa Sadovnick A, Yee IM, Ebers GC. Recurrence risks to sibs of MS index cases: impact of consanguineous matings. Neurology 2001; 56: 784–5.
13 Becker SM, Al Halees Z, Molina C, Paterson RM. Consanguinity and CHD in Saudi Arabia. *Am. J. Med. Genetics* 2001; **99**: 8–13.
14 Hampshire KR, Smith MT. Consanguineous marriage among the Fulani. *Human Biol.* 2001; **73**: 597–603.
15 Shawky S, Milaat WM, Abalkhail BA, Soliman NK. Effect of maternal education on the rate of childhood handicap. *Saudi Med. J.* 2001; **22**: 39–43.
16 Jaber L, Halpern GJ, Shohat T. Trends in the frequency of consanguineous marriages in the Israeli Arab community. *Clin. Genetics* 2000; **58**: 106–10.