

Consanguinity in the Maltese Islands

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Abstract

Consanguineous marriages may increase the risk of some medical conditions and may be useful to examine social and other aspects. There were few such marriages in the Maltese islands until late in the 19th C when they increased until they began to decline in the new century. These marriages were twice as common in Gozo as in Malta, but the proportion varied in parishes. In some parishes, such marriages were mainly among a few related families; some families had many consanguinities over several generations. These marriages probably reflected the social standing of the families and the lack of mixing of young people with others of lower status. Families of polio cases showed many consanguineous marriages.

Introduction

Malta and Gozo are small islands in the middle of the Mediterranean. Almost all Maltese were Roman Catholic, with records of baptisms, marriages and deaths going back to the 16th century. The surnames are distinct with some relatively common. There is a good medical school, many of whose graduates gained qualifications and experience in Britain and the British army. It is therefore an ideal community for studying health and disease. In this paper I examine different aspects of consanguineous marriages, comparing the proportions in the two islands, in different villages, generations and date as well as between parents and grandparents of polio children and controls. Consanguineous marriages may carry possible health consequences and may also suggest social and other aspects. For families of polio cases, there were many consanguineous marriages in more than one generation.

Keywords

consanguinity, genetic susceptibility, Malta, poliomyelitis, social status.

Methods

With the approval of the Archbishop of Malta, the Bishop of Gozo and the Chief Government Medical Officer, I found the clinical notes of 1072 Maltese children who had been paralysed with polio between 1909 and 1964. I traced these children and their baptism matched controls (prefixed 'C') to their great grandparents. Baptisms and marriages were found in the parish registers. Where there was no trace of a marriage, the births or marriage of the parents were traced in the Public Registry and checked in the relevant parish. This study was confined to Maltese, but all marriages with foreigners were traced to a record of birth outside Malta: from the 1850's some British married Maltese. There were flourishing Maltese communities in many Mediterranean countries: Maltese who were born or married abroad were traced by searching Maltese records for their parents, writing to the kappillan in for example Tripoli or in two cases by consulting parents on holiday from Australia and America. All records of the Maltese community in Egypt were destroyed in the Suez war of 1956.

Parish registers of baptisms and marriages were consulted, but many give no details: all but one have indexes, but many documents and indexes are in appalling condition. A few give considerable detail, including, for baptisms, marginal notes of subsequent marriage. Some marriages were not entered in the parish register, some names have been transposed and the handwriting of some kappillans cannot be deciphered in either certificate or parish register. Some births, especially from the central hospital in Floriana, were illegitimate with no record of a father's name. The marriage registers record dispensations for consanguinity, eg II, III/IV etc. The two Curias have dispensation documents, but detailed analysis would require considerable effort. Because there were big disparities in adjacent years in the number of marriages, (for Malta 1058 and 846, 1436 and 1839, 1404 and 1982) and in dispensations for consanguinity (for Gozo, 3 and 19, 18 and 33), I have used averages of each.

The Public Registry started in 1863, but the early records were incomplete. In Gozo, the annual indexes and originals are easily consulted. In Malta, there were heavy annual indexes with separate compilations for common surnames and card indexes with basic information for births, and marriages from 1900, but the original certificates could not be consulted. When this study was nearly completed, card indexes for all births were ready and with reshelving of the original

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certificates consultation was possible, but not easy: some originals and index pages are missing or damaged. Records have now been transferred to computer databases.

In a few cases, the parish record was incorrect or absent, probably because the kappillan made the entries some time after the ceremony - and the celebrations. It is possible that in some villages, the priest because he was new, or through pressure or the poverty of the marriage couple, overlooked relationships or did not probe too deeply.

Dispensations for consanguinity in Malta and Gozo

In both Gozo and Malta there was a rise in the proportion of consanguineous marriages after 1870, but since the first world war, they have declined by more than a half (Table 1). During this time the proportion in Gozo has been more than twice that of Malta. The number of marriages in Gozo has risen every year since the 1930's and in Malta the number of marriages almost

doubled since the first world war. The number of marriages each year is based on those registered in the Public Registry, but registration was only made compulsory in 1975. I have found that perhaps as many as 10% were not registered before 1900 so that the rates for consanguinity may be high. In more recent times, most marriages were recorded.

Consanguinity in Gozo

The overall figures conceal even bigger differences between different villages. Zebbug, a small isolated village in the northwest had a high proportion of consanguineous marriages (Table 2). In contrast with this small village, there were few in the central town of Victoria. Qala, a larger village in the east with 439 adults, had fewer consanguineous marriages than Zebbug. However, surprisingly, Nadur a much larger village, had a high proportion of consanguineous marriages.

Table 1: The changing pattern of dispensations for consanguinity

Gozo	Average number each year of		
	Marriages (Public Registry)	dispensations for consanguineous	% of marriages Consanguinity
1873 – 1877	96	16	16
1883 – 1887	123	26	21
1893 – 1898	118	25	21
1914 – 1918	99	21	21
1926 – 1928 #	116	13	11
1938 – 1944 #	174	16	9
Malta			
1873 – 1877	812	c 50	c 6
1883 – 1887	957	c 50	c 5
1909 – 1913	941	84	9
1917 – 1919 #	1576	120	8
1927 – 1929 #	1345	c 80	c 6
1939 – 1943 #	1930	c 85	c 4
1949 – 1953 #	1797	55	3

In 1917 the Corpus Juris Canonici reduced the reporting of impediment from IV to III which would account for some reduction in the number of dispensations. The new Canonical Law of 1983 further reduced the impediment to only II.

Until 1975 registration of a marriage was not compulsory and perhaps 5% or more were not registered: no allowance has been made for this.

Marriages were taken from the Public Registry and dispensations from the Curias at Victoria (Gozo) and Floriana, Malta. Dispensations were granted for *consanguinity*, *affinitas* and *criminale*. For years when there was no separation of dispensations for consanguinity, I have deducted estimated numbers of *affinitas* and *criminale*.

Table 2: Different proportions of consanguineous marriages in some villages in Gozo (details of polios and controls from the parish registers)

Parish	Adults #	Parents No.	Parents consanguinous		Grand-parents No.	Grand-parents consanguinous	
			No.	%		No.	%
Zebbug	275	16	3	19	32	12	38
Nadur	1045	51	13	26	114	33	29
Qala	439	13	2	15	28	11	39
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total		80	18	23	174	56	32
Victoria	1901	51	4	8	123	7	6

number of adults 20 to 49 years, census of 1901.¹

Table 3: Different proportions of consanguineous marriages in some villages in Malta (from the parish records of marriages)

Parish	Adults #	Period	Marriages No.	Marriages consanguinous		Consanguinities
				No.	%	
Gharghur	509	1881-1891	74	15	20	2 x III, 3 x III/IV, 10 x IV
Kirkop	240	1898-1917	70	13	19	II, 5 x III, III/IV, 6 x IV
Qrendi	469	1890-1895	100	17 *	17	5x II, II/III, III, 3x III/IV, 8x IV
Safi	140	1890-1895	40	6	15	II, II/III, 3 x III, IV
Gudja	387	1890-1895	100	12	12	3x II, 2x II/III, 2x III, 3x III/IV, 2xIV
Mqabba	434	1896-1905	76	4	5	II/III, III, 2 x IV
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Total						10 x II, 5 x II/III, 14 x III, 10 x III/IV, 29 x IV
Birkirkara	3200	1900	100	7	7	2 x II, 2 x III/IV, 3 x IV

20 – 49 yr, Census 1901¹ and 1932²

* of which 2 were double consanguinities (there were also 3 *affinitas* dispensations)

Table 4: Families with multiple consanguinities

Parish	Child	Parent	Grand-parent 1	Grand-parent 2
A	1244	III	II/III	
	C 483	III	IV	
B	1241	II		IV
	C 484		II	IV
C	1228	III	III/IV	IV (+ <i>affinitas</i>)
	C 257	II	III	III/IV #
	1220	III	II + IV ⁺	II/III + III
	C 1268	III	II + IV ⁺	
	1227		III	IV
	1222		II	III/IV
	C 690	II+III	II	
	C 474	III		IV+IV
	C 1222	III	IV + III	III/IV + III/IV
	C 1223	III	III/IV + IV	II + III/IV
	1223		IV + IV	III
D	1248	II	III	III
E	1204	III	IV	
	1203		IV	IV
F	C 1264	III		III
G/H	1252	III		II/III
J	989	III	II + III	
K	C 225	III	III + III/IV	
	723	III	II/III + III/IV	
L	771	II + II	IV	IV

Consanguinity in Malta

Malta has about ten times as many people as Gozo, with larger towns such as Valletta, Floriana and the Three Towns across Grand Harbour. Mgarr, a small village in the north (not to be confused with the small port of the

same name on Gozo) is very isolated. Villages are not homogeneous and may consist of several almost separate groups. In the south east of the island around a larger, more central village of Zurrieq there is an isolated group of villages, Kirkop, Safi, Mqabba and Qrendi which might be similar to ones on Gozo. There were 70 marriages between 1898 and 1917 in Kirkop, the village of Hal-Farrug studied by Boissevain³. These small villages and Gharghur a village in the north-east showed 14.5% of consanguineous marriages compared with the 7 % of the large cosmopolitan village of B'Kara (Table 3).

A dispensation could be obtained for the marriage of uncle and niece, I/II and seven such marriages were found: three of parents of polios and two each for grand-parents of polios and controls. There were few consanguineous marriages in Valletta, but in the two parishes of St. Dominic and St. Paul Navifraga, of 49 polios, two of the parent's marriages were I/II (of which one was of also cousins, II) and of the 125 grand-parents, one was II. Among 45 controls, one parental marriage was consanguineous and of 144 marriages of grand-parents, three were consanguineous of which one was I/II.

Multiple consanguinities in families

There were families with multiple consanguinities (Table 4) although in village C there were many families, most of whom were related in a large complex, many of them with polio cases. The control children were closely related to families with polio cases and had probably received immunity when protected by maternal antibodies. It is probable that consanguinity had increased the probability of inheriting susceptibility to poliomyelitis. In that village one great grand-parent of polio 1228 had 4 sons and 4 daughters of whom 5 had consanguineous marriages, 3 x III and 2 x IV. Other families were not investigated.

Discussion

The pattern of consanguinity in Malta is fairly similar to that of inland Sardinia and the diocese of Reggio Emilia where there were very few dispensations until the late 19th C³, although the reasons for the increase and then decrease may be different.

Boissevain, a cultural anthropologist, lived in the small village of Kirkop and wrote about life in 1960 and 1961.⁴ He gave several reasons for consanguineous marriages. Families with the highest prestige in the village could not marry social inferiors. Marriages between first cousins could keep property of grand-parents intact. Finally, cousin marriages occur because first cousins could wander in and out of each other's houses with considerable social contact and become better acquainted than unrelated persons who were

chaperoned at that time. Cousins marry because they like each other and know each other better than others. All these reasons may have applied to the family of one case with motor neurone disease which I studied. The parents' marriage was II/III plus III/IV and the marriage of the mother's parents was III.

Boissevain analysed these and other factors in his two books on Malta.^{4,5} In his analysis of a single family, there were two first cousin marriages. The high proportion of marriages of third cousins (IV degree) in the villages is probably a legacy of the few available families when the villages were smaller and more isolated in the early nineteenth century (Table 1).

Cavalli-Sforza, Moroni and Zei³ listed the chief justifications for dispensations by the Holy See of which the absolute cause is the small size of the community ie when the village has fewer than 1500 inhabitants (300 families). In their survey of marriages 1851-1950 in 74 parishes in the Parma Valley in N. Italy with fewer people than this in 1951 (page 96), many parishes, 33, had fewer than 8 % consanguineous marriages and only 9 had more than 20% of which 2 had 33% and 1 of 42%. Many of these 44 villages had fewer than 500 inhabitants in 1951. Altitude, up to 1000 metres, was a better predictor of consanguinity than the numbers of inhabitants per parish or population density. A map of the region⁷ showed that Rigoso 22%, Bosco 11%, Piandetto 26% were at the heads of valleys and the most isolated where the next and neighbouring parish would be lower in the valley. Much of Malta and Gozo is flat and with few hills so that isolation must be the major factor. Unlike the mountains of Italy, the aerial map of Malta shows many isolated scattered houses over the south and eastern part of Malta, but few in the more hilly and rocky west and north of the island. It may be that consanguinity was higher among the more isolated houses rather than in the villages themselves. Where marriages from two villages were made, the couple might have been near neighbours on the outskirts of the two parishes. Villages on a coast have fewer neighbours and are thus more isolated although sailors and girls from the port on Gozo married in the destination port on Malta.⁷

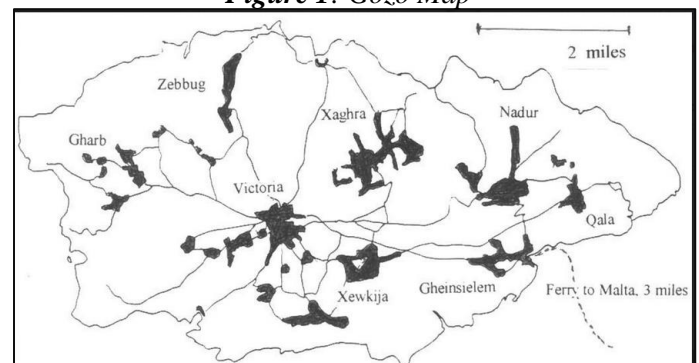
The 1901 census for Gozo¹ listed Ghasri, San Lawrence, Zebbug, Kerzem, Sannat, Gheinseilem and Qala with fewer than 1500 persons and Xewkija with 1762 (compare with Table 1). There were, proportionately, more than twice as many consanguineous marriages in Gozo than Malta (Table 1). However, the trends were similar.

The parish registers of marriages record the consanguinities, but nothing of status or occupation, whereas certificates in the Public Registry record the occupation, where living and where born. However, the occupation is not necessarily helpful. For one family, the

parents of a polio were a double cousin (II + II) marriage, the groom was a 'farmer' and both grand-parent marriages were IV. Was the groom a high status farmer or a small-holder? The costs for a dispensation, the fees to the church and the lawyers, must have been high for poor families. The marriage of the parents of one polio was I/II + II, with the bride's parents a II consanguinity, but these were rich people. Another marriage of the parents of a polio was also a I/II consanguinity with the groom 'unemployed' but in his 60's and the bride born in Egypt. The father of another polio with a III consanguinity was a labourer. Families with a consanguineous marriage were likely to have one in a previous generation and sibs were more likely to have consanguineous marriages.

Vassallo made a study of consanguineous marriages on Malta and commented on the possible health consequences⁷. Vella compared the high incidence of thalassemia in Mellieha, Paula and Zebbug (Gozo) with low incidence in Floriana, Ghargur, Msida, Sliema, Naxxar and Nadur (Gozo).⁸ However, although he gave examples of frequent intermarriage in both Mellieha and Zebbug (Gozo), Zebbug (Gozo) and Nadur did not differ significantly in their consanguinity rates (Table 3). Vella reported that 'Zebbug was described by a prominent educated villager as one large family' and of Mellieha 'intermarriage is frequent and of 30 or so marriages solemnised annually in the village in the last few years, not more than 5 each year have involved a partner who was not of local stock'. Macelli, Inglott and Sammut said of Zebbug (Gozo), that 'intra-village marriages up to the war [1940] were 80%' and 'new households set up in the village as close to the core as possible'.⁹ However, records in the Gozo Public Registry show that many marriages in other villages, especially Victoria, involved a person born in Zebbug.

Figure 1: Gozo Map



Conclusions

In Malta, it is isolation rather than altitude that determined rates of consanguinity. Although rates of consanguinity are useful, the continuity of it in families is more meaningful and tells us more of the social and, perhaps, financial mores of the villagers. Consanguinity

in families was associated with susceptibility to poliomyelitis.¹⁰⁻¹¹

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I have arranged to deposit the cards and records in the Melitensis Library of the University of Malta.

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