# Differences over time in older people's relationships with children and siblings

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#### **ABSTRACT**

Based on data from the Bangor Longitudinal Study of Ageing, this paper examines changes over 16 years (1979–1995) in the relationships of older people (aged 65 or over in 1979) with their children and siblings. The study uses latent class analysis to categorise the relationships into two types based on four components of intergenerational solidarity: structural, associational, affectional and functional. The two types of relationship identified are close knit and loose knit. Results show a change in relationship types over time. Overall, relationships with parents decreased in solidarity. Relationships with mothers showed a smaller decrease in close knit relationships than with fathers; sibling relationships of parents became more loose knit, but remained stable and closer for those who were childless. 71 per cent of those aged 80 or over had at least one close knit relationship with either a sibling or child. Gender differences exist in the development of relationships over time: fathers had more loose knit relationships with children than mothers, and male-male sibling dyads did not strengthen over time.

**KEY WORDS** – old people, sibling, parent-child, interpersonal relationships, substitution, care.

#### Introduction

In the literature of the sociology of ageing there is an emphasis on the importance of children as sources of expressive support and instrumental help in old age. Much of the attention which the relationship between the parent and adult child has received, has been framed in terms of the availability of the child to provide support and services to the parent. Thus the literature focuses on geographic proximity and frequency of contact. Less attention has been given to other aspects of the relationship itself.

People who are now in their 80s and 90s were born on average into larger families of orientation than subsequent cohorts. For those ageing

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without children, siblings assume greater support significance. Relationships between siblings in old age, however, have received even less attention than parent-child relationships.

That research which *has* been done on relationships has primarily been conducted in North America, although even here the emphasis is on the burdens of care (Johnson 1995). In Europe a greater proportion of gerontological research has been funded by government or otherwise policy-related bodies, with the result that the utilitarian availability of adult children has received most attention. As a result, with the possible exceptions of the Netherlands and Germany, far less research on the nature and content of relationships in old age has been published.

In looking at the nature of parent-child and sibling relationships amongst people aged 80 or over and living in rural areas of Wales, this paper draws on literature from both European and neo-European (Australia, Canada, USA) sources. The research is cited with particular reference to those measures of family cohesion that are used in this study to represent the construct of intergenerational solidarity (Roberts et al. 1991). The theory of intergenerational solidarity has been used to explain the strength of relationships between adult kin, especially in old age (Lee and Netzer 1994). The types of relationships characterised by the interrelationship between dimensions of intergenerational solidarity are described in the methodology. Using a multivariate methodology (Silverstein and Litwak 1993), two types of relationship are identified in the study population. The paper looks at the distribution of these types; explores differences between relationships with children and their mothers and fathers, and relationships with siblings; and reports how the relationships change over time. Finally the policy implications of the findings are discussed.

## **Background**

Families of older adults are characterised by continuity and change in the context of marriage, childbearing, divorce, widowhood, childlessness, grandparenthood, bereavement and family care-giving. More research is needed to explain relationships within the families of older adults (Brubaker 1990).

#### Parent-child relationships

Adult children have been identified as the key family members for most of those aged over 80 (Johnson 1995). However, parents appear to have stronger attachments to their children than children have to their

parents, and do not appear to have to be in close contact with them in order to sustain strong feelings (Troll 1995). Likewise, intergenerational solidarity and the exchange of services can be maintained in spite of geographical distance (Silverstein and Litwak 1993).

Jerrome (1994*a*: 9–10) comments on the effects of greater longevity on intergenerational relationships:

... the tendency for women to produce children earlier and have fewer of them, the postponement of death to old age and the likelihood that members of cohorts born this century will reach old age in the company of their peers, means that family members' lives overlap to a much greater extent than previously. Parents and children might experience a life-overlap of seventy years.

The importance of the parental role linked to Erikson's (1950) concept of generativity, in the sense of the adult's responsibility to care for younger generations, has been demonstrated even when the parent is over 80 (Wenger 1992). At the same time, the average age of adult children caring for very old parents is now over retirement age (Wenger *et al.* 1996).

A Canadian study has shown that proximity is the most important predictor of all types of contact between parents and adult children (Frankel and DeWit 1989). Research in the United States (Lin and Rogerson 1995) has shown that the majority of old Americans have a child living within 10 miles. For those with more than one child the second-closest child is usually within 30 miles, although further away in rural areas. Intergenerational dispersion was found to be primarily related to the mobility of adult children and was most pronounced when parents were middle-aged, but tended to become less so for older parents. Similarly, disengagement between children and parents is greatest during the middle age of the parents (Silverstein and Bengtson 1997). Research in the UK has also shown that the physical distance between parents and adult children is greater in rural areas (Wenger 1984). However, adult children in southern and Eastern Europe are more likely to live closer to their parents than in the rest of Europe and North America (Hollinger and Haller 1990).

There is some evidence to indicate that vulnerable older parents are more likely to have traditional family relationships as a response to parental need (Silverstein and Litwak 1993). This could indicate that parents and children move closer together as they age or, that only parents with children nearby remain living in the community. Litwak and Longino (1987) propose that once chronic disability is manifest everyday tasks become more difficult. Since spouses often help with household tasks, chronic disability can be compounded by widowhood

and precipitate a move closer to the family (Litwak and Longino 1987; Bradsher et al. 1992; Warnes and Ford 1994). It has been suggested by Moss and Moss (1992) that when parents do move nearer, adult children are keen to foster the independence of their parents (but continue to see them as important attachment figures) while, at the same time, parents value freedom for their children and seek to limit expectations (Knipscheer and Bevers 1985). However, other findings from the Netherlands suggest that frequency of contact declines with increasing age as a result of a reduced desire for contact on the part of the parent (Dykstra 1993). A rural UK study indicates that only 45 per cent of those aged 85 or more have at least weekly face-to-face contact with their children (Wenger 1984). Thus the theory of Litwak and Longino (1987) would suggest that we will find more parents living near to their children at the end of this study than at the beginning.

It has been suggested that intergenerational ties are closer for women (Abel 1986; Markides et al. 1986), with daughters bonding with their mothers more strongly than sons (Jerrome 1993; Troll 1995). We would therefore expect to find a greater proportion of affectionately close mother-child relationships than father-child relationships. However, an English study (O'Connor 1994) found that only 31 per cent of clients of a social services department who had children had a close relationship with a child. Although this finding may be biased due to the nature of the sample, this suggests that the relationship between parent and child may be fragile in the context of a need for personal care. A study of estranged parents and children (Jerrome 1994b) has similarly indicated that breakdowns in relationships can occur for a variety of reasons, such as conflicting expectations and the demands of in-laws, over which parents feel they have little control. There is, therefore, evidence in the literature that parent-adult child relationships, although important, are not always unproblematic and as such we would not expect all parent-child relationships to be engaged on the affectional dimension of intergenerational solidarity.

The literature reinforces the assumption of mutuality between parents and children in the context of illness, and the reality of that mutuality is supported by research findings (Young 1994). However, there is also evidence from the USA that, in the absence of illness, the levels of giving and receiving support between elderly parents and their adult children are not particularly high, although there is frequent intergenerational contact (Eggebeen 1992a). The amounts and types of support depend on the resource levels of each generation and competing demands for support (Eggebeen 1992b). It has been long established that childlessness is correlated with entering institutional

care (Townsend 1965). This may indicate that relationships other than that between parent and child cannot provide enough support to sustain the older person living in the community. Children tend to provide more help and support to parents who are widowed than those who are still married (Dykstra 1993). We would expect to find increases in the proportion of children giving help to their parents following widowhood.

## Sibling relationships

The sibling relationship has been described as 'the longest bond' (Cicirelli 1994). Siblings share a long history of intimate family experiences and, in the last years of life, are among those very few who have memories of one's own parents and childhood. Geographical proximity, social network structure, health and gender are important influences on the relationship.

Relationships with siblings are significant throughout life, especially for those without children (Wilson et al. 1994), and most siblings have a commitment to maintain the relationship, which is typically more egalitarian than that with other family members (Cicirelli 1991). The underlying dynamics of sibling relationships have been identified as balanced reciprocity, optional rather than obligatory exchange of support and the maintenance of personal autonomy. Positive sibling relationships have been shown to enhance well-being in later life (Cicirelli 1988; Avioli 1989). There is evidence to indicate that sibling relationships may become stronger in later life (Jerrome 1994a; Moyer 1992). We may expect to find low levels of functional support between siblings but high levels of affectional solidarity, especially for older people without children.

There is also evidence to suggest that relationships with sisters may be especially important. Levels of contact with sisters have been found to be higher than with brothers and closeness of the bond to a sister was related to less depression for both men and women (Connidis 1989). However, Connidis also found that, despite more frequent contact, sisters are not more likely to be close friends or confidants than brothers or brother-sister pairs. Elsewhere, sister-sister relationships have been found to be more intimate than other sibling relationships (Wilson *et al.* 1994). Siblings are more likely to be confidants where they live in close geographic proximity (Connidis and Davies 1992). Wilson *et al.* (1994) have shown that morale is more highly correlated with the *quality* of the sibling relationship than frequency of contact. Sibling relationships, therefore, are important aspects of well-being in later life.

Siblings are not a frequent source of instrumental support, although they are perceived to be available in a crisis (Connidis 1994; Wenger 1984). They are more likely to provide emotional support whereas children supply practical help (Wilson *et al.* 1994). Again sisters have been found to be particularly important in Ireland, especially in sibling households, although this was felt to be the result of residence patterns of sisters, as brothers were more likely to move away (James *et al.* 1984).

## **Hypotheses**

In this paper, variation in parent-child and sibling relationships amongst people aged 80 or over is addressed. This is based on 1979 and 1995 data for 1995 survivors from the Bangor Longitudinal Study of Ageing. Using an adaptation of latent class analysis of intergenerational solidarity developed by Silverstein and Bengtson (1997), this paper discusses the distribution of relationships in two categories, the differences between relationships with mothers and fathers, differences between siblings who are parents and those without children, and changes over time between 1979 and 1995.

A longitudinal study of an ageing population would be expected to show increases over time in the proportion of people widowed and those with functional impairment. Evidence from the literature review on parent-child relationships and expectations of changes in marital status and functional ability leads us to develop our first set of hypotheses. We expect that due to increased need for help with activities:

- 1. More parents will live near to a child in 1995 than in 1979.
- 2. More parents will receive help from a child in 1995 than in 1979.

Based on multi-dimensional categorisation of intergenerational solidarity it would be expected that the increase in proximity to children and the receipt of help would lead to:

3. An increase over the course of the study, in the proportion of engaged parent-child relationships.

However, it is expected that this will differ according to the gender of the parent, and that:

4. Proportionally more mother will have engaged relationships with children, than will fathers.

The literature suggests that sibling relationships strengthen over time, thus it is predicted that:

5. There will be proportionally more engaged sibling relationships in 1995, than in 1979.

As with parent-child relationships, it is expected that gender differences will be reflected by the assignment of sibling relationship types. It is predicted that:

6. Proportionally more sister-sister relationships will be engaged, than brother-brother or brother-sister relationships.

However, recognising that sibling relationships are especially significant for those without children we expect that:

Relationships between siblings are more likely to strengthen over time for childless people than for those who are parents.

The final hypothesis relates to the assumptions that are the foundation of the seventh. It was thought that sibling relationships may also be important for parents in the absence of a close relationship with at least one child. As we have predicted that mother-child and sister-sister dyads were more likely to have relationships that are engaged, it is further predicted that:

8. Overall, relationships between female respondents and at least one child or sibling are more likely to be engaged, than relationships between male respondents and kin.

# Methodology

The sample for the Bangor Longitudinal Study of Ageing<sup>1</sup> was drawn in 1979 from a cross-section of rural communities in North Wales. It consisted of people aged 65 and over in 1979, living in eight communities representing different settlement types. The sample included one elderly person from each household that contained at least one person aged 65 or over in the communities with a population less than 1000, and from 50 per cent of such households in the communities with a larger population. The achieved sample of 534 people was representative of the region for community size and the age distribution of those aged 65 and over.

An administered questionnaire survey was conducted in the homes of the respondents in 1979. It was repeated in 1983 for the survivors who were aged 75 or more in 1979, and again in 1987, 1991 (using a concise questionnaire) and 1995 with all survivors. A detailed description of the methodology is available from the authors. This paper is based on the responses to the first and last rounds of interviews.

Data were collected from respondents for: migration history; contact with family, friends and neighbours; ability to manage and help with

activities of daily living and household tasks; and access to, and use of, formal and informal services. Aspects of these data were used to classify respondents into classes that were based on the adult child-parent relationship types previously identified by Silverstein and Bengtson (1997). They used six dichotomous indicators to classify relationship type according to levels of intergenerational solidarity: structural solidarity (the proximity of children); associational solidarity (frequency of contact, including telephone use); affectual solidarity (emotional closeness); consensual solidarity (similarity of opinions); and two measures of functional solidarity (receipt of help and giving of help).

It has been noted elsewhere that the six indicators could be combined into pairs, that is social-structural, emotional-cognitive and reciprocity in functional exchange, and that it may be more parsimonious to use less than six dimensions to measure intergenerational solidarity (Silverstein and Bengtson 1997). Data had not been collected for consensual solidarity or *giving* help to siblings and children in 1979 and so, in this analysis, only four of the indicators were used to classify the relationship types: structural, associational, affectual and functional (receipt of help only). Roberts and Bengtson (1990) have found that consensus between older parents and adult children is not an important factor in intergenerational solidarity. Disagreement over topics such as politics or religion appears to be either insignificant or avoided by both parties.

The original responses to the survey questions, encoded into several categories, were collapsed into four dichotomous scores for latent class analyses.<sup>2</sup> A cross-tabulation of the scores resulted in 16 response patterns which were assigned to latent classes using Maximum Likelihood Latent Structure Analysis (Clogg 1990).<sup>3</sup> Models using two to three latent classes were tested to see which was the most adequate.<sup>4</sup>

Table 1 shows the goodness-of-fit statistics for models with one to three classes. Latent classes were assigned to three separate sets of relationship data. Intergenerational relationships of mother-child and father-child dyads have been found to have different distributions according to the gender of the parent (Silverstein and Bengtson 1997), therefore latent classes were assigned separately for mother and father relationships with each child. Sibling relationship types were also assigned separately. The model was chosen primarily on the  $L^2$  p-value (> .05) and then on the lowest BIC statistic.

For mothers and fathers the two and three class models had *p*-values > .05 indicating no statistically significant difference between the data and the model. When the BIC statistic is taken into consideration

Table 1. Latent class models of adult child-parent and sibling relationships using four dichotomous indicators

	Statistic	One class model	Two class model	Three class model
	$L^2$	378.18	4.05	1.55
Mothers	df		6	3
n = 469	р		0.66	0.67
	BIC		-32.85	- 16.9
	ID		0.016	0.003
	$L^2$	294.93	5.35	1.33
Fathers	df		6	2
n = 347	р		0.5	0.51
	BIC		-39.75	- 10.37
	ID		0.024	0.005
	$L^2$	428.8	8.73	4.74
Siblings	df	1	7	7
n = 929	р		0.27	0.32
3 3	BIC		-39.11	-22.6
	ID		0.014	0.004

however, the two-class model is a better fit for the data. For sibling relationships both the two- and three-class models had p-values > .05. As with the models for mothers and fathers, when the BIC statistic is taken into consideration it can be seen that the two-class model is a better fit for the data. Therefore we accepted the two-class model as the one that fitted all three sets of data most adequately. Classes were also assigned independently to each group of dyads (mother-child, father-child and sibling) for the whole sample in 1979, and for the 1995 survivor sample. Unless otherwise stated, the unit of analysis was the dyadic relationship type, that is the relationship between a respondent and each child and/or sibling.

The final conditional probabilities provide a justification of the definition of the adopted two classes (Table 2). The classes are described as *close knit* and *loose knit* and can be defined as follows:

Close knit: The dyads are more likely to be engaged on three dimensions of solidarity. They are more likely to: live within one hour driving time from each other; be in contact with each other more than once a week; and be close or very close emotionally. They are more likely to receive help from the other member of the dyad than people who have loose knit relationships.

Loose knit: Dyads are more likely not to be engaged on any of three indicators of solidarity; structural, associational and functional. They

Table 2. Final conditional probabilities of items measuring dimensions of solidarity in relationships in 1979 and 1995

1979	Close l	nit relati with:	onships	Loose l	knit relati with:	onships
Dimensions of solidarity: Manifest indicator	Mothers	Fathers	Siblings	Mothers	Fathers	Siblings
Structural: Distance						
Lives within 1 hour drive	1.00	1.00	.99	.27	.2 I	.47
Lives greater than 1 hour away	.00	.00	.01	-73	.79	.53
Associational: Contact						
At least once a week	.99	.99	.89	.05	.02	.00
Less than once a week	.01	.01	. I I	.95	.98	1.00
Affectual: Emotional closeness					_	
Very close	.97	.94	.97	.88.	.90	.76
Somewhat or not close	.03	.06	.03	.12	.10	.24
Functional: Gets instrumental help	· ·					•
Yes	.36	.25	.2 I	.02	.01	.00
No	.64	.75	.79	.98	.99	1.00
1995	Close l	nit relati	onships	Loose l	nit relati	onships
Dimensions of solidarity:		with.			WILII.	
Manifest indicator	Mothers	Fathers	Siblings	Mothers	Fathers	Siblings
Structural: Distance						
Lives within 1 hour drive	.94	1.00	.65	.17	.37	.29
Lives greater than 1 hour away	.06	.00	·35	.83	.66	.71
Associational: Contact						•
At least once a week	1.00	1.00	.99	.47	.56	.00
Less than once a week	.00	.00	.01	.53	.44	1.00
Affectual: Emotional closeness				00		
Affectual. Efflotional closeness		1.00	1.00	.72	.81	.6ı
Very close	1.00			•		
	.00	.00	.00	.28	.19	.39
Very close		.00	.00	.28	.19	.39
Very close Somewhat or not close		.00.	.00	.28	.19	.39 .00

are less likely to be emotionally very close than people with close knit relationships.

The attrition of the dyadic relationships within the sample was examined. When the longitudinal study started in 1979, the age range of respondents was 65 to 99 years. Table 3 shows the distribution of numbers of living children and siblings. Thirty-one per cent of the sample were childless in 1979 and in 1995. Twenty-seven per cent had no living siblings in 1979, but by 1995 this had increased to 48 per cent. Only nine per cent of the sample had neither child nor sibling in 1979; by 1995 this had increased to 17 per cent of the sample.

Table 4 compares basic demographic data for men and women in the total and survivor samples, in 1979 and 1995. It shows that, as

Table 3. Distribution of respondents with numbers of children and siblings, demonstrating attrition between 1979 and 1995

	Ch	ildren	Siblings		
	All 1979	Survivors 1995	All	Survivors 1995	
No. of children or siblings:		0/	/ <sub>0</sub>		
)	31	31	27	48	
I	22	27	2 I	23	
2	23	2 I	18	13	
3	10	6	16	10	
or more	14	15	17	6	
n(=100%)	534	95	534	95	

Table 4. Characteristics of parents in 1979 and 1995

		Mothers				Fathers		
	All	Surv	ivors		All	Survivors		
	All 1979	1979	1995	-	1979	1979	1995	
Age of subject:								
Mean age	75.1	71.0	87.0		73.4	69.9	85.9	
Minimum age	65	65	81		65	65	81	
Maximum age	95	83	99		99	80	96	
Household composition:				%				
Alone	54	49	62		25	19	26	
With spouse only	21	31	7		44	59	41	
With younger generation	19	15	9		24	15	15	
Other	7	6	2		8	7	o	
Residential Care	o	0	2 I		O	o	15	
Marital status:							_	
Single	19	15	15		14	ΙI	ΙI	
Married	23	40	10		58	70	41	
Widowed	57	46	75		27	19	48	
Divorced/separated	2	0	O		I	O	0	
No. of children per subject:								
0	32	35	35		29	19	19	
I	23	22	25		20	26	33	
2	23	2 I	19		23	26	26	
3	8	4	6		13	15	7	
4 or more	14	18	15		15	15	15	
n(=100%)	325	68	68		209	27	27	

expected, the survivors were younger than the others in 1979 and, as a result, more likely to be married and less likely to be living alone.

In order to ascertain whether the surviving relationships are typical of the sample as a whole, the distributions of relationship types in 1979

for parent-child and siblings, were compared for the whole 1979 sample with the subset of the 1979 sample that survived to 1995. The distribution of 1979 relationship types for the parent-child relationships that survived was almost identical with that of the total sample. Sixtynine per cent of the total sample had close knit relationships compared to 70 per cent of the sub-sample of survivors. As with the adult child-parent relationships, the surviving sibling relationships showed similar distributions, with over three-quarters of the relationships in the total and survivor sample classified as loose knit. In terms of family relationship patterns and personality, the survivors are representative of the total sample.

In order to look at changes in relationships over time, subsequent analyses are restricted to the respondents and their relationships which survived to 1995. There are 131 adult child-parent dyads, which can be assigned to relationship types in 1979 and 1995, and 95 surviving sibling relationships, of whom 83 can be assigned to latent classes in both years.<sup>5</sup>

# **Findings**

Relationships with children and siblings in 1979 and 1995

Table 5 shows the distribution of relationship types, comparing surviving relationships between parents and children and between siblings in 1979 and 1995. In 1979 the distribution of relationship types for siblings differs significantly from that for children (p < .005). Two-thirds of child-parent relationships are close knit and one-third loose knit whereas three-quarters of sibling relationships are loose knit and only one-quarter close knit. By 1995 the differences in solidarity between parent-child and sibling relationships had all but disappeared. Both parent-child and sibling relationships were now more equally divided into close knit and loose knit relationships, although loose knit relationships were slightly more common for both (51 per cent and 60 per cent respectively). The changes in relationship types for both parent-child and sibling were examined separately to try to explain these temporal shifts.

#### Parent-child relationships over time

The relationships between parents and their children were examined in relation to the first four hypotheses. The characteristics of the children in 1979 and 1995 are displayed in Table 6. The dimensions of solidarity

Table 5. Distribution of parent-child and sibling relationship types: comparison of 1979 and 1995 (survivors only)

	Parent-child			Siblings	
	1979	1995		1979	1995
			%		
Close-knit	69.5	48.9		20.5	39.8
Loose-knit	30.5	51.1		79.5	60.2
n(=100%)	131	131		83	83

TABLE 6. Characteristics of children in 1979 and 1995

		Mothers				Fathers		
	All	Surv	ivors		All	Survivors		
	1979	1979	1995	_	1979	1979	1995	
Age group of children:				%				
< 30	3	6	O		10	7	O	
30-44	49	67	8		59	76	ΙI	
46-55	31	ΙI	51		20	13	$5^{2}$	
56-65	7	2	37		5	2	30	
6 <sub>5</sub> +	I	O	5		I	O	7	
Missing	9	14	O		4	2	O	
Gender of children:								
Male	52	52	52		55	57	57	
Female	48	48	48		45	44	44	
$n(=  \text{ioo}  {}^0\!\!/_{\!\! o})$	498	85	85		359	46	46	

for survivors in 1979 and 1995 were compared, contrasting relationships with mothers and fathers (Table 7).

In the first hypothesis we predicted that more parents will live near to a child in 1995 than in 1979. In addition, our second hypothesis predicted that more parents would receive help from a child in 1995 than in 1979. For mother-child relationships there is a statistically significant difference between 1979 and 1995 in the amount of help given by the child (p < .005) and in the geographical distance between the parent and the child (p < .005). Table 7 shows that, in 1979, children were more likely to live near to mothers than fathers (note that, for married couples only one of the partners was selected for the sample, and that more mothers were widowed). By 1995 the difference between mothers and fathers was substantially reduced with 61 per cent of children living within an hour of their mothers compared with 54 per cent living within an hour of their fathers. Overall for parent-

Table 7. Distribution of items measuring dimensions of solidarity in mother-child and father-child relationships which survived until 1995

Dii	Relations w	ith mothers		Relations v	vith fathers
Dimensions of solidarity: Manifest indicator	1979	1995		1979	1995
Structural: Distance			%		
Lives within 1 hour drive	84	61	, ,	67	54
Lives greater than 1 hour away Associational: Contact	17	39		33	46
At least once a week	7 I	78		67	70
Less than once a week Affectual: Emotional closeness	29	22		33	30
Very close	95	88		98	87
Somewhat or not close Functional: Gets instrumental help	5	12		2	13
Yes	13	44		24	30
No	87	57		7 <b>6</b>	70
$n(=100{}^0\!/_{\!\! 0})$	85	85		46	46

child dyads, 22 per cent of the children lived more than an hour's drive away from the parent in 1979 but, by 1995, this had increased to 41 per cent.

These figures seem to contradict migration theories that state that people are likely to move to be nearer their families in old age (Litwak and Longino 1987; Wiseman 1980). In 1979 some of the sample still had children living at home and in the interim some of these, and others living nearer to their parents, had moved away at marriage or to find work. As parents may live near only one of their children, the distance between parents and the nearest child was examined. Surprisingly, there was still a decrease between 1979 and 1995 in the percentage of parents living within one hour of the nearest child; 97 per cent of parents lived within approximately fifty miles of a child in 1979 but only 71 per cent in 1995. The first hypothesis, therefore was rejected, as fewer parents lived near to a child in 1995 than in 1979.

The proportion of children providing help to mothers increased from 13 per cent in 1979 to 44 per cent in 1995. In total, 64 per cent of mothers were receiving help from children in 1995 (note that help may come from only one or two children in the family). Although the trends in levels of solidarity were in the same direction for father-child relationships the differences were not significant. Therefore, the second hypothesis is partially supported, with more parents receiving help from their children in 1995 than in 1979.

Table 8. Comparison of mother-child and father-child relationships in 1979 and 1995 (survivors only)

	Mothe	Mother-child		Father-child	
	1979	1995		1979	1995
			%		
Close-knit	70.6	60.0		67.4	28.3
Loose-knit	29.4	40.0		32.6	71.7
$n(=\text{ioo}{}^0\!\!/_{\!\!o})$	85	85		46	46
, , , ,	3	5		1	1

There were interesting gender differences between children who were giving help to parents. In 1979 instrumental help to parents came primarily from daughters (59 per cent). Looking at assistance for mothers and fathers separately, a division of labour was found. Of fathers who received help, 54 per cent acquired this from their sons, whereas 73 per cent of mothers receiving help were aided by their daughters. By 1995 help from daughters to parents had increased slightly (from 59 to 61 per cent), and daughters were now more likely than sons to aid both fathers and mothers, providing 57 per cent of the assistance to fathers and 62 per cent of the help to mothers.

Our third hypothesis was that the increase in solidarity on structural and functional dimensions over 16 years would lead to an increase in the proportion of close knit relationships. As the structural dimension of solidarity had not strengthened, it was not surprising that the third hypotheses also had to be rejected. As Table 5 shows, over two-thirds of parent-child relationships were close knit in 1979. By 1995 this had reduced to a half.

There is a significant difference in the assignment of classes between 1979 and 1995 (p < .005). A majority of both close knit and loose knit parent-child relationships remained constant over the 16 years (54 per cent and 63 per cent respectively). Solidarity decreased for the remaining 46 per cent of those who had close knit relationships in 1979, and conversely increased in 38 per cent of the relationships that were loose knit.

However, our fourth hypothesis proposed that proportionally more mothers than fathers would have close knit relationships with their children. Comparing mother-child relationships with father-child relationships we find some interesting differences (Table 8). There was very little difference in 1979 when a majority of relationships between children and parents were close knit (71 per cent for mothers and 67 per cent for fathers). By 1995 these similarities had disappeared.

Table 9. Characteristics of siblings in 1979 and 1995

	All	Surv	ivors	
	1979	1979	1995	
Age group of siblings:		%		
< 45	< 1	O	O	
45-54	4	8	O	
55-64	19	35	2	
65-74	37	35	23	
75 <sup>-8</sup> 4	26	17	42	
8 <sub>5</sub> +	5	2	31	
Missing	9	2	I	
Gender of relationship:				
Brother/Brother	17	ΙI	ΙΙ	
Sister/Sister	33	48	48	
Brother/Sister	49	41	4 I	
Missing	I	O	O	
$n(=100{}^{\circ}\!\!/_{\!\! o})$	929	83	83	

Engagement between the mothers and their children had decreased with only 60 per cent classified as close knit. This was not as dramatic however as the changes within father-child relationships. By 1995, onethird of close knit relationships had become loose knit. Eighty per cent of the relationships that were loose knit in 1979 remained loose knit in 1995. Although the evidence does not indicate that relationships between parents and children strengthened over time, mother-child were more likely than father-child relationships to remain close knit, thereby supporting the fourth hypothesis.

## Sibling relationships over time

In order to address the second set of hypotheses, relationships between siblings were examined. Table 3 showed a high rate of attrition: the proportion of the sample with no siblings rose from one in four to nearly one in two. Conversely the percentage with two or more siblings fell from 51 per cent to 29 per cent. Table 9 shows the age groups of siblings and the gender combinations in sibling relationships. The longer life expectancy of women is evident in the greater proportion of sister relationships. The decrease in numbers of sibling relationships due to death is reflected in the increased age of siblings in 1995.

Table 10 compares the solidarity measures for surviving sibling relationships, in 1979 and 1995. Surviving siblings saw significantly more of each other in 1995 than in 1979 (p < .005), but were less close

Table 10. Distribution of items measuring dimensions of solidarity in sibling relationships which survived until 1995

Di	Relations with Siblings			
Dimensions of solidarity Manifest indicator	1979	1995		
Structural: Distance	C	%		
Lives within 1 hour drive	53	42		
Lives greater than 1 hour away	47	58		
Associational: Contact				
At least once a week	22	40		
Less than once a week	78	6o		
Affectual: Emotional closeness				
Very close	90	76		
Somewhat or not close	10	24		
Functional: Gets instrumental help				
Yes	6	2		
No	94	97		
n(=100%)	83	83		

both emotionally and geographically (p < .05). The receipt of instrumental help from siblings was minimal in both years.

Our fifth hypothesis predicted that more sibling relationships would be classified as close knit in 1995 than in 1979, representing a strengthening of sibling relationships over time. Table 5 shows the distribution of surviving sibling relationship types in 1979 and 1995. Statistically significant differences between 1979 and 1995 were found in the proportion of relationships classified as close knit which increased from 20 per cent to 40 per cent, and as loose knit which decreased from 80 per cent to 60 per cent (p < .005), supporting the fifth hypothesis. Unlike relationships with children, it appears that sibling relationships strengthen over time.

To address the sixth hypothesis, in which we suggest that proportionally more sister-sister relationships will be close knit than other combinations of sibling dyads, the gender of the sibling dyads was examined. Although there were no statistically significant differences in both 1979 and 1995 between relationships for the categories of brother-brother, sister-sister and sister-brother dyads, analyses of change in relationships over time for each type of dyad showed that significantly more sister-sister relationships became close knit (p < .005). In 1979 only 23 per cent of sister-sister relationships were close knit; by 1995 this had increased to 53 per cent. The other sibling dyads did not show such large increases. Mixed gender sibling dyads showed only a slight increase from 18 per cent in 1979 to 29 per cent in 1995, and brother-

Table 11. Distribution of items measuring dimensions of solidarity in sibling relationships which survived until 1995 for people with and without children

		Relation	s with siblings	
	Without	children	With c	hildren
Dimensions of solidarity Manifest indicator	1979	1995	1979	1995
Structural: Distance			%	
Lives within 1 hour drive	55	45	52	41
Lives greater than 1 hour away	45	55	48	59
Associational: Contact				
At least once a week	25	65	2 I	32
Less than once a week	75	35	79	68
Affectual: Emotional closeness				
Very close	80	95	94	70
Somewhat or not close	20	5	7	30
Functional: Gets instrumental help		_	·	_
Yes	20	10	2	o
No	80	90	98	100
n(=100%)	20	20	63	63

brother sibling relationships remained constant over the sixteen years with only 22 per cent having close knit relationships in both years. Thus, the sixth hypothesis was supported.

Whilst the gender of sibling dyads was important in the increase in close knit sibling relationships, the seventh hypothesis predicted that the absence of children would also have an effect. It was felt that in a majority of sibling dyads, decreases in mobility on both sides would have an impact on the reciprocity of the relationship in terms of frequency of contact, potential instrumental help and emotional closeness. When, however, subjects were childless it was hypothesised relationships would strengthen over time as there would be no child to fulfil needs for solidarity and support.

Table 11 shows the distribution of solidarity measures for sibling relationships, comparing those with and without children in 1979 and 1995. For childless people there were significant increases in frequency of contact with their siblings over the 16 years (p < .05) and slight increases in emotional closeness. Levels of instrumental help between siblings were low in both 1979 and 1995 and decreased over time. However, more of those without children received help from their siblings compared with virtually none of the parents. Contact with siblings increased slightly for parents over time, but the distance between siblings increased significantly (p < .05) and emotional

Table 12. Distribution of sibling relationship types: comparison of those with and without children in 1979 and 1995

	Without children			With children	
	1979	1995		1979	1995
			%		
Close-knit	25.0	65.0		19.0	31.7
Loose-knit	75.o	35.0		0.18	68.3
n(=100%)	20	20		63	63

closeness decreased (p < .005), suggesting that contacts may be long-distance and based on feelings of responsibility and perhaps overnight visits rather than day-to-day contact.

Table 12 shows the distribution of sibling relationship types for 1979 and 1995, comparing parents with those without children. In 1979, when members of the survivor sample were younger, there were no statistically significant differences in sibling relationships between these two categories. The dominant sibling relationship type for both was loose knit, probably reflecting their generally better health and independence.

When relationship types in 1995 are compared, it is clear that sibling relationships have become more important for those without children. Close knit relationships are most common for those who are childless, while loose knit sibling relationships are most typical for those who have children (p < .05). Two-thirds of those without children have close knit relationships with their siblings, over twice as many as the 32 per cent of parents. This provides some evidence that, in the last decades of life, sibling relationships consolidate for those without children. However, the number of surviving sibling relationships of childless people was small (n = 20). As hypothesised above, when the childless have surviving siblings, it is they who tend to substitute for the absence of children. Where there are children, sibling relationships become slightly closer but loose knit relationships predominate.

## Substitution of relationships

The relationships of each respondent in the sample who had children and/or siblings in 1995 were examined to see if close knit relationships would be formed with at least one of these relatives (n = 72). It was found that 71 per cent of the sample had at least one close knit relationship with either a child or a sibling.

To test the eighth hypothesis it was necessary to look at the gender of those without close knit relationships. It was found that proportionally nearly twice as many men (42 per cent) as women (23 per cent) had no close knit relationships with either children nor siblings. Therefore, the final hypothesis was supported: older women are more likely to have a close knit relationship with at least one member of their kinship group than older men.

## Conclusions and policy implications

People over 80 years of age are the fastest growing age group in the UK population, but they have become a sizeable group only within the last decades. As a result, we know less about this oldest age-group than we do about those over 65 as an aggregated category. In this paper, we have tried to extend knowledge and understanding about two important family relationships amongst the oldest people in our society. We have looked at changes over a period of 16 years in the relationships of people aged 65 and over in 1979, in order to understand the significance of these relationships for those aged over 80 and living in a rural area.

This paper makes two main points: (1) that relationships between family members may be close knit or loose knit but that relationships with mothers and sisters are more likely to be close knit than those with fathers and brothers; and (2) that the nature of close family relationships is not necessarily stable but may change over time. These findings indicate the importance of a life-span perspective of the ageing process, and demonstrate the need for social policy to acknowledge developmental change in the family other than increasing frailty and dependency. It is suggested that a developmental approach to older adulthood, comparable with that applied to childhood and younger adulthood, would enhance our understanding of the eighth and ninth decades of life. It is clear from the findings presented in this paper that family relationships have their own dynamic and that social policy decisions for this significant age-group should take account of this.

The findings demonstrate that a significant minority of the oldest people have no children, but, even for parents, having children does not necessarily mean that adult children are available, or even needed, to provide instrumental help in the eighth and ninth decades of their parents' lives. For approximately half of this very elderly cohort, relationships of the proximate, instrumentally supportive type, which appears to be widely assumed by policy-makers in the context of community care, are not available. Gender appears to be an important factor in the solidarity of relationships with parents, which may weaken over time. Relationships with mothers are more likely to be close knit and although the percentage of close knit relationships decreases over time, this is not as dramatic as the decrease in close knit relationships with fathers.

Comparable close sibling relationships which might be seen as substituting for absence of children are even less likely to occur, albeit that they are more common amongst those without children. Gender is an important factor here too. Close sibling relationships are most common between sisters and least often found between brothers. Although sibling relationships strengthen over time to become more close knit, the provision of instrumental help from elderly siblings is very rare and cannot be expected.

By 1995, the youngest members of the sample were 81 years of age. The majority of their children were aged 30–55 in 1979 and 46–65 in 1995. The adult children have also aged over the time span of the longitudinal study and the surviving children of respondents in their 90s were in their sixth or even seventh decade, so some of the parent-child relationships included two generations of older people. Many of the survivors had no surviving brother or sister by 1995; other siblings had entered residential care; or one or both sides of the dyad had become disabled. We are concerned here, therefore, with the ageing of the family as well as the individual.

Research in the United States has shown that disengagement between children and parents is greatest in middle age and is reduced as parents age (Silverstein and Bengtson 1997). The findings presented here support earlier findings which show that contact with parents and the provision of instrumental help by children increase with age, demonstrating greater involvement of children with parents. However, it has been shown that for most adult children greater involvement is not associated with greater geographical proximity. In fact, fewer parents lived within an hour's drive of their children in 1995 than in 1979.

By 1995, approximately two-fifths of children lived more than an hour away from their parents, and only 71 per cent of parents had a child within 50 miles compared with 97 per cent in 1979. This is in conflict with US findings cited above, indicating that people move to the vicinity of their families in old age in order to meet support needs. It is not clear whether this difference reflects different behaviour in the two countries, but it is more likely that it is the result of the different age-groups sampled. For instance, moving nearer to children may be

associated with retirement moves and may, therefore, be more applicable to those under 80 years of age. By the time the parents are over 80, it is the children who are making decisions about retirement.

Despite the advanced ages of the parents and the greater frequency of contact with children, fewer parents had children near enough to provide help on a day-to-day basis in 1995 than 16 years previously. Fewer parent-child relationships were assigned to the close knit relationship type in 1995 than in 1979.

Most parents said that they felt very close to all their children. It is difficult to know how accurately parents report the emotional content of their relationships with their children and it is possible that they are inclined to present the best possible interpretation. We do know that parents have stronger attachments to children than children to parents (Troll 1995). However, fewer parents felt emotionally very close to their children with the passage of time. This is surprising given higher levels of contact and the provision of more help which presupposes in most instances face-to-face contact. It is likely, therefore, that dependency on instrumental help from children reduces emotional closeness. If this is so, and further research in this area is needed before any definitive statement can be made, it has important policy implications for the emotional well-being of the oldest old people in the context of community care.

While the provision of instrumental help is related to proximity, frequency of contact (including face-to-face visits, telephone conversations and letters) is clearly not, and the greater frequency of contact with advancing age confirms findings from the US that involvement of children with parents is not affected by distance (Silverstein and Litwak 1993). However, while parents may rely increasingly on children for expressive support, a significant proportion (43 per cent) of children are too far away to provide instrumental support and more than half of these distant children provide neither emotional support nor instrumental help.

These findings suggest researchers, policy-makers and practitioners should be cautious in using research findings based on the 65+ age group to make predictions about the 80+ age group. At the level of the individual, it cannot be assumed that the nature of parent-child relationships is consistent over time. Jerrome (1986) has reported how friendships are affected by growing frailty, showing that members of the peer group seek to dissociate themselves from evidence of growing impairment. However, we know little about the impact of mental and physical change on close family relationships. We need to know more about the dynamics of increasing frailty on the one hand, and the

responsibility for care and the receipt of family care on the other. We also need to know more about the effects of these factors on the nature of relationships. The future success of community care policy will depend on the awareness of policy-makers and practitioners of the potential impact of their decisions.

## NOTES

- <sup>1</sup> Funded by Department of Health 1978–86, Department of Health, and Economic and Social Research Council 1986–1995, and Department of Health 1989–1999.
- 2 In 1979 and 1995 the questions regarding structural, associational and affectual solidarity were asked for each sibling and child. Functional solidarity was identified from responses to three questions that elicited responses about the receipt of help, which was not exclusively from siblings and children.

Structural solidarity: Where are they living? Answers were coded into two categories: Less than one hour away (under 50 miles) and Greater than one hour away (more than 50 miles).

Associational solidarity: *How often do you usually see them*? There were differences between 1979 and 1995 in the coding of answers. Responses were re-coded into *Greater than once a week* and *Less than once a week*.

Affectual solidarity: How would you describe your relationship with them? (1979). How close do you feel to N? (1995). In both years the first category – very close and friendly (1979), very close (1995) – was used to identify affectional solidarity as Very close with the remaining categories re-coded as Somewhat or not close.

Functional solidarity: Who would you have turned to if you were ill and could not leave the house? Who would you turn to if you needed a lift somewhere? Do you receive help from anyone with shopping? If the responses for the first two questions were Someone else in household or Relative outside household, or Yes (daily, regularly or occasionally) for the third question, then questionnaires were checked by hand to identify name and relationship of helper which had been recorded. Help given in any of the three areas by a named sibling or child indicated Received help as opposed to Didn't receive help.

- 3 Latent classes were assigned using the Maximum Likelihood Latent Structure Analyis (PROG MLLSA) module (Clogg 1990) of the Categorical Data Analysis System (CDAS) Version 3.5 (Eliason 1990). A description of the EM algorithm used in this programme is described elsewhere (Clogg 1977; McCutcheon 1987).
- 4 The goodness-of-fit measures used were: the likelihood ratio chi square statistic  $(L^2)$ , the Baysian Informal Criterion (BIC) statistic and the index of dissimilarity (ID). The  $L^2$  statistic shows if there is a statistical difference between the observed data and the theoretical model. P values less than .05 show that there is a statistically significant difference between the data and the model and therefore the fit is not good, whereas P values greater than .05 suggest there is not a significant difference and signify a better fit. The BIC statistic is calculated:

 $L^2$ -(df) log N

where N is the total sample size. BIC is useful for selecting models that are being compared, with the lowest negative BIC the most preferable (Raftery 1986). In addition, the ID shows the percentage of the sample that were misallocated by the theoretical model (Clogg 1995).

5 Differences between categories of relationships, for example, in comparing childparent dyads and sibling dyads, are assessed using Pearson chi-square tests. Comparison of dimensions of solidarity and assignment to classes between 1979 and 1995 are considered with McNemar's test for two related samples, using the binomial distribution to assess the level of significance.

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